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THE RAILROAD MAN'S MAGAZINE

Queer Accidents and Freak Happenings of the Rail.

MARCH

THE FRANK A. MUNSEY COMPANY NEW YORK AND LONDON

Naturalness

—*that* should be every woman's aim. The further she gets away from that standard, the less attractive she becomes. It is the true test of manners, apparel, and personal charm. Indeed, it is the very key-note of beauty. Naturalness of skin and complexion is therefore beauty's most essential element. This being so,

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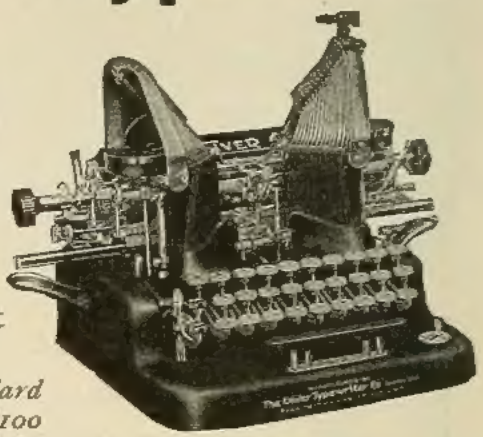

Send Coupon or Letter for Details

A message of vital moment to the vast audience reached by this magazine.

We are selling the Oliver Typewriter—the Standard Visible Writer—the New Model No. 5—the regular $100 machine—for Seventeen Cents a Day! Whether you sit in the councils of great corporations or are perched on a bookkeeper's high stool—*whatever your part in the world's activities*—this offer of the Oliver Typewriter means something worth while to *you*.

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THE RAILROAD MAN'S MAGAZINE

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ISSUED MONTHLY BY THE FRANK A. MUNSEY COMPANY.
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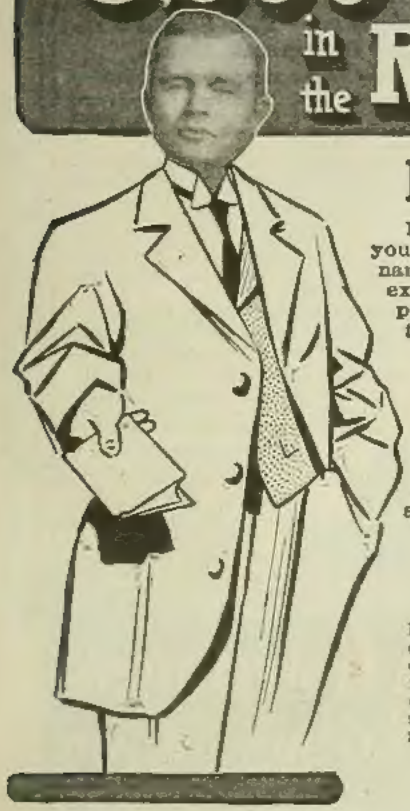

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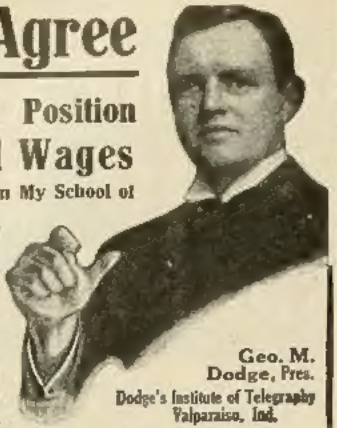

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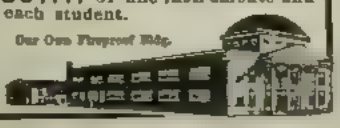

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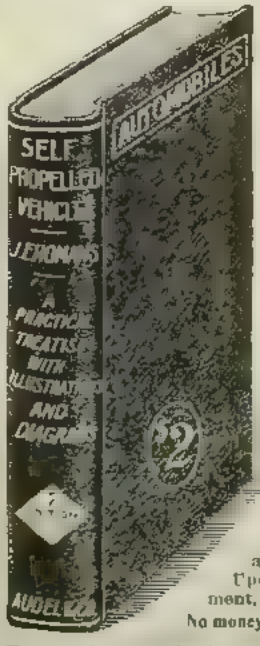

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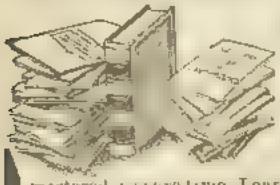

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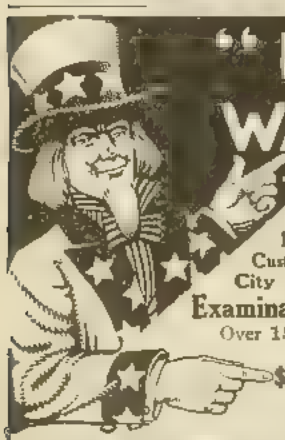

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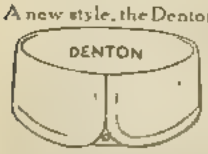

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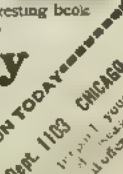

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so you slip in and out easy as can be. No tearing the yoke when sweaty, no tugging over your head when tired.

"Extras," found only in the **Signal** shirt, are: Button at bottom of breast plait, to improve fit; fronts lap 3 inches; sleeve-slit placed in side, to keep out dirt; and faced with double continuous piece, proof against ripping.

If your dealer hasn't the Signal Coat Shirt, tell us his name and your size and we will send you one by express, C. O. D.

Send for a Couple. Price $1.00

West of Missouri River, $1.25

If you like them, pay Express Company. If not entirely satisfied, return at our expense.

Write for folder showing styles in neat colored patterns with collars to match at $1.00 and $1.50 (suitable for semi-dress

Hilker Wiechers Mfg. Co.

1252 Mound Ave., Racine, Wis.

TRADE MARK SIGNAL SHIRT Union Made

HAY'S HAIR HEALTH

RESTORES COLOR

To Gray or Faded Hair

Removes dandruff and invigorates the scalp. Is not a dye. Satisfaction promised or money refunded.

Refuse substitutes. $1.00 & 50c bottles at Drug and Department Stores or Direct upon receipt of price and your Dealer's name if he does not carry or will not get it for you.

Six cents for postage secures sample bottle.

Philo Hay Specialties Company, Newark, N.J., U.S.A

HAY'S HARFINA SOAP

is unequalled for the complexion, toilet, bath, red, rough, chapped hands and face. Preserves and beautifies and keeps the skin soft and healthy. 25c drug and department stores.

Helps Poor Hearing

Here is a wonderful little device which has enabled thousands of deaf persons to again hear perfectly. Cunningly contrived to fit *inside* the ear, it is absolutely invisible. It puts you back to your old place in the world — breaks down the terrible wall of silence.

This invention is the life work of a man who for years was hopelessly deaf.

Purely mechanical, it is actually a "*listening machine*" that magnifies and focuses the sound waves on a central point on the natural drum. With it the deafest person can hear even whispers. You can again enjoy the theatre, music, church services—and best of all, the conversation of your family and friends.

Write Today for "Experience Book"

Free to you, it gives the testimony of 400 persons who have been released from the awful isolation of deafness by this simple mechanical device. Just write your name on a postal and the book will be delivered to you, postage prepaid. Mail it today. WILSON EAR DRUM COMPANY, 314 Todd Building, Louisville, Ky.

No. D 159

Sent for $2.00

Only $2 cash places this beautiful dining-room set in your home. The balance you pay in little monthly remittances of $1.25. Direct-from-factory price of complete set only **$18.75.**

Six handsome dining chairs of genuine solid oak, highly polished, with genuine leather seats; massive, strong and graceful. Table, the desirable pedestal style, make of heavy solid oak and matches chairs in elegance. Very elaborate design with massive claw feet effect. Top measures 42 inches and extends six feet

KITCHEN CABINET SENT FOR $1.50

Made of hardwood, and built for service 65 inches high, 42 inches wide, with 26-inch table. Two flour bins of 50 pounds capacity with veneered anti-warp bottoms. Top has large cupboard with double glass doors, dustproof drawers and sliding bread tray. A wonderful value at $7.85 $1.50 cash, balance 75 cents a month

No. D 905
$7.85

These are merely samples of the tremendous values in high grade home furnishings which have made us the leading home-outfitters of the world. 800,000 satisfied customers, 22 big retail stores in the larger cities. When you buy from us you get the same elegance, the same distinction, the same quality which you see in the best city homes. And at unheard-of low prices on terms suited to your convenience.

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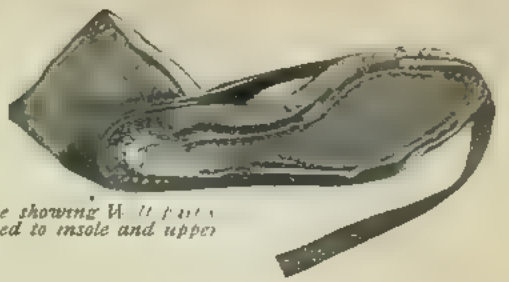
206 N. Wabash Ave., Chicago, Ill.

Largest, oldest and best known home-furnishing concern in the world

Established 1855—55 years of success

22 Great Stores—800,000 Customers



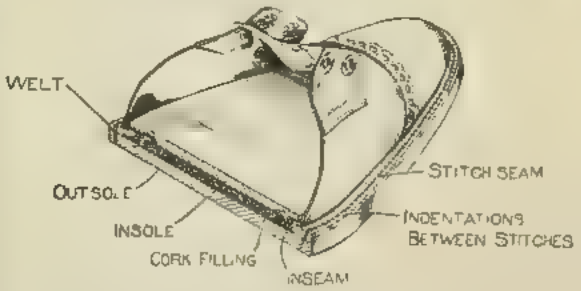
Shoe showing Welt parts sewed to insole and upper

A Sure Way to Tell the Kind of a Shoe to Buy

Study these cuts, then go to your dealer and ask for a pair of shoes made with a

GOODYEAR WELT

The manufacturer or dealer who advertises that he makes or sells a Goodyear Welt thereby assures you that he offers a shoe possessing the first requisite of excellence a shoe, made by machines, which is as comfortable, durable and stylish as one hand-sewed at only one-third the cost.



A thin and narrow strip of leather called a welt is first sewed to the insole and upper. The outsole is then sewed to this welt, leaving the stitches outside so that the insole is left entirely smooth.

When you purchase shoes see if there is a "sock" lining or thin piece of leather or cloth covering the sole on the inside. If there is lift it up at the shank of the shoe. If points and stitches show underneath it, the shoe is not a Goodyear Welt.

Write today for the following booklets which will be sent you without cost:

1. Contains an alphabetical list of over five hundred shoes sold under a special name or trade mark, made by the Goodyear Welt process

2. Describes the Goodyear Welt process in detail and pictures the sixty marvelous machines employed

3. The Secret of the Shoe—An Industry Transformed.' The true story of a great American achievement

4. 'An Industrial City.' Illustrated—descriptive of the great model factory of the United Shoe Machinery Company at Beverly, Massachusetts

United Shoe Machinery Co., Boston, Mass.

The Quick Way to Make the Best Soup

Order a jar of Armour's Extract of Beef from your grocer. Notice its richness and appetizing aroma.

Then make your soup according to the cook book rule—all but the stock. When your recipe says "add stock," get out your Armour's Extract of Beef and allow a teaspoonful to every quart of liquid.

You will have the most satisfactory soup you have ever served, with a delightful flavor that ordinary soups cannot boast.

For Armour's Extract of Beef is the richest, most concentrated soup stock any cook could wish.

One jar costs little more than the materials necessary for a small supply of old-fashioned soup stock, and it goes twice as far.

It saves fuel, time and trouble—no more stewing over the kitchen stove.

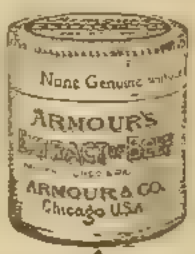
What Users Say

Mrs. H. C. F., Seattle, Washington "I use Armour's Extract of Beef many ways to great advantage, but will cite only one. A little added to a glass of milk gives a flavor that is a pleasant change both for baby and his grandmother."

Mrs. W. K. Hurley, Texas—"I find that Armour's Extract of Beef saves me time, worry and expense. I have long depended upon it to help me out in my cooking and could hardly keep house without it. I should advise every housekeeper to send for that valuable little cook book, 'Popular Recipes,' and learn how it helps them economize."

A postal mailed to Armour & Company, Chicago, will bring you "Popular Recipes"—free. It will show you the many uses of Armour's Extract of Beef.

Save the cap or the paper certificate under the cap from every jar of Armour's Extract of Beef you buy. Send either to us with 10 cents to pay for carriage and packing. We will send you a beautiful silver tea, bouillon or after-dinner coffee spoon or butter spreader free — Wm. Rogers & Sons' AA — in an artistic design known as the Armour Lily Pattern, each marked with your initial.



For a limited time we will allow each family to have 12 -a set that would cost you $6 00—for $1.20. This offer is restricted to residents of the United States. Address Dept. E 108.

ARMOUR AND COMPANY

CHICAGO

THE RAILROAD MAN'S MAGAZINE

Vol. XIV. MARCH, 1911. No. 2.

Whims of the Wheels.

BY CHARLES FREDERICK CARTER.

WHEREVER things are continually on the move,—as they are along the right-of-way,—there are bound to be enough cuts and shuffles in Fate's great game to turn up any number of quaint and amusing incidents. In this respect, railroad men above all others have little cause to complain of the monotony of daily routine.

The odd, the humorous, and the unexpected are always cropping up, on the trains, in the yards, and all over the length and breadth of a great system. Mr. Carter, who, as you all know, is a veteran railroader, has gathered a few of these tales of travel, ranging in their scope from Maine to California, all of which ring as true as a sound wheel, though some are as weird and marvelous as stories from the Arabian Nights.

Humorous Situations, Narrow Escapes, Queer Encounters, Freak Accidents, and Other Peculiar Happenings Both Off and On Moving Trains.

A YOUNG Western couple took it into their heads to elope in the month of roses and weddings several years ago. They boarded a train on the Southern Pacific and got out into Nevada, when they decided that the wedding ceremony simply could not be postponed another minute. Accordingly they wired ahead for the agent at Winnemucca to procure a license and a justice of the peace for them.

Having been taught that it was his sacred duty to please the patrons of the road, the agent immediately procured the license. Being a justice of the peace himself, he was ready to do his duty, and boarded the train before it had come to a stop at the station platform.

Meanwhile the dining-car had been cleared of tables and chairs, and the bridal pair was waiting. The chef and a couple of waiters with mandolins and guitars played the wedding-march, the agent read the service, the conductor gave the bride away, and then the Pullman passengers, in their capacity of wedding guests, sat down to the best the car could afford.

Pitched in a different key was an incident that occurred in the same month and

year on the Louisville and Nashville, near Birmingham, Alabama. About four o'clock in the morning a coach full of dozing passengers was suddenly roused by a series of blood-curdling shrieks. When they looked for the cause, they found a woman perched on the back of a seat staring with protruding eyes at the floor beneath. When she was able to explain, she said she had felt something squirming between her feet, and upon investigating found it was a six-foot rattlesnake. The whole car-load instantly concluded that it could hear further particulars to much better advantage from the backs of the seats, so the change of location was accordingly made, while a hurry call was turned in for the train crew.

The conductor and two brakemen broke open a tool-box, from which they armed themselves with axes, sledges, and saws. The rattlesnake, whose sensibilities had been hurt by the unseemly conduct of the passengers, put up such a spirited fight that the interior of the car was in ruins before it was finally despatched. The mystery of its presence was explained by a telegram awaiting the conductor at the next station.

It was from the owner of the snake, saying that his prize had escaped from its box, and that he had not discovered his loss until after leaving the car. Would the conductor please take good care of it? What the conductor said need not be repeated here. Such things should be forgotten.

Close Shaves with the Reaper.

Passengers who have been pluming themselves on their adventure in the New Haven coach, which, in the month of June, 1910, jumped the rails, while running twenty-five miles an hour, bounced along on the ties for a few car-lengths, and then flopped over on its side without hurting any one, will be taken down several pegs on learning that their experience was nothing when compared with an incident that occurred March 24, 1901, at Columbus, Ohio.

A Big Four freight-train had stopped on a crossing, when a Baltimore and Ohio passenger-train, mistaking or disregarding signals, or perchance misled by a wrong signal, dashed between two cars, pushing them apart wide enough to make room for the passage of the train, with no harm to anything except the varnish on the coaches and the draw-bars on the box cars. No one was so much as scratched. After the danger was over the fireman realized that he should have jumped, and, as he had always been told that "it's better late than never," he forthwith proceeded to jump. Score, one broken jaw.

This was completely outdone, however, on August 22, 1909, when a passenger-train on the Great Northern, near Darts, Washington, fell through a bridge which had been burned by a brush fire, to the ground, forty feet below, without killing or fatally injuring any one.

Even this pales into insignificance when compared with the feat of another Great Northern train, a freight, which, on May 27, 1901, ran into a push-car which a contractor's gang tried too late to hustle in on a siding. This trifling affair probably would never have been heard of if there had not been over a ton of dynamite on the push-car.

As it was, the locomotive was blown completely off the track, everything was stripped off the boiler, a great hole was torn in the road-bed, several box cars, a steam-shovel, and a trackman's shanty, seventy-five feet away, were utterly demolished. It seems incredible, yet no one, not even the engine crew, was hurt.

What One Engine Did.

This is doing pretty well, but, after all, the palm really belongs to a Rock Island switch-engine. This switch-engine, which was old enough to have outgrown the recklessness of youth, but belonged to the age when they made throttle-valves that would not always stay put, was standing sedately enough on a side-track at Council Bluffs, Iowa, on January 17, 1901, with no one on board.

Presently a Wabash passenger-train came along. It was attending strictly to its own business, but the switch engine took exception to it. The yarder's throttle flew open, and it dashed through a split switch, butted a coach off the Wabash train and sent it sprawling into the ditch. The shock derailed the switcher, but it scrambled along on the ties until it ran into a Union Pacific switch-engine and knocked it also into the ditch.

This second shock deflected the Rock Island engine far enough for it to reach over and yank the engine off an incoming

passenger-train of its own line and hurl it into the ditch. Then it stopped with its nose in the dirt and its cab tilted at a rakish angle to gloat over the ruin it had wrought. In all this weird mix-up no one was seriously injured.

The Trials of a Trespasser.

Still, any one who fools around a railroad must take his chances of getting hurt. There was a North Carolinian who took the broad and easy path afforded by the railroad on his way to a turkey-blind with his trusty double-barreled shotgun, containing a heavy charge of buckshot in each barrel. As related by General Manager L. E. Johnson, of the Norfolk and Western, the turkey-hunter presently met a fast train, and, with true Southern chivalry, stepped aside and gave it the whole road.

A little scrub-bull which had also wandered onto the track was less polite, however. Instead of getting out of the way, the bull drew a mark in the ballast with one forefoot, threw some dirt on his back, and then, with lowered head, dared the train to cross the mark. Well, it crossed the mark all right, at fifty miles an hour, and the bull—oh! where was he?

Probably no one could answer that question in full, but it is known that for a very brief fraction of a second the bull and the turkey-hunter both tried to occupy the same spot at the same time, which, as every one knows, is impossible. The result was that the turkey-hunter was knocked into a pond, which broke his fall and undoubtedly saved his life. He was severely hurt. His shotgun was knocked out of his hands, and in falling was discharged, and two cows that had the misfortune to be in range of the buckshot were killed.

When he recovered, the turkey-hunter, as was natural, sued the railroad company for illegally, unlawfully, and against the peace of the sovereign State of North Carolina, throwing one bull at him by which aforesaid illegal and unlawful act he suffered grievous bodily harm. At the same time, which probably was also natural, the owner of the cows sued the turkey-hunter for shooting them.

After two notable trials, the unfeeling court held that the railroad company owed the turkey-hunter nothing for hitting him with a bull, but that he owed the farmer one hundred dollars for killing his cows. When such things as this can happen, is it any wonder that railroads are unpopular?

THE PASSENGERS WERE SUDDENLY AROUSED BY A SERIES OF BLOOD-CURDLING SHRIEKS.

No, he who wants justice from a railroad will get quicker action if he takes matters into his own hands. There was a Kentuckian whose cow was killed by a Louisville and Nashville train a dozen years ago. When the engine that killed the cow came through on its next trip the owner of the cow was at the station waiting for it. Stepping up to the engineer, he demanded pay for the cow.

"Oh, that's all right!" airily replied

the engineer. "The company will pay as soon as it gets around to it."

"Look-a-hyar, stranger," replied the Kentuckian, "Ah do' know the company, but Ah know you-all killed my cow; and if you-all doan' pay fo' her Ah'll fill you so full of holes they kin use yer carcass for a colander. Do you heah me?"

The cow was paid for on the spot.

Another man who was too shrewd to trust his cause to the blind goddess was a passenger in a Pullman car which left the rails near a bridge on the Norfolk and Western a few years ago, and plunged down the bank into a river, that was swollen by a freshet. The doors being closed, the windows being double, and the trucks having dropped off, the car filled slowly as it floated down the river.

It was very early, before the passengers were up. The men inside broke open the ventilators, and, with the aid of outside help, all hands were rescued. There were two women passengers who tumbled out of their berths, clad only in their night-robes and with their hair done up in curl-papers.

They had to hang on to the curtain-pole with the water up to their arms; and it certainly looked as if they were going to drown with the rest of the passengers. Yet General Manager Johnson declares upon his honor that when they were rescued their hair was neatly done up. How they managed it, sloshing around in the water nearly to their chins, with death staring them in the face, only a woman can understand.

His Modest Claim.

Among the passengers was one man who alone in all that carful did not put in a claim for enormous damages for lost baggage. On the contrary, he was very active and very helpful to the company in resisting unreasonable and unjust demands. Naturally the company felt very grateful.

One day the considerate man was asked what he had lost. Very modestly he confessed that he had lost a satchel containing a quantity of costly clothing, including some fine silk underwear, but he made

THE CAR FILLED SLOWLY AS IT FLOATED DOWN THE RIVER.

no claim for this. The company was trying hard to get along, and he believed in doing to others as he would that others should do to him.

Besides that, he was only too glad to get out alive. Still, he also had in that satchel a watch and some jewelry, mere trinkets, worth altogether $250. Rather than have any trouble about it, he would allow the company to pay him for the watch and jewelry; that is, if it really insisted. What could the company do but shell out $250 as quickly as the money could be counted?

In due time the car was fished out of the river, and in it the lost satchel of the considerate one was found. Here is an inventory of its contents: One cotton shirt, one pair cotton socks, two collars, one pair cuffs, half-pint whisky.

However, it is not always the cunning passenger who triumphs over the grasping corporation, but, on the contrary, it is the passenger who sometimes gets the worst of it. When the Erie was newer than it is now, Conductor James Tinney, in going out of Jersey City, came to a passenger, a woman with a baby, who refused to pay her fare.

STARTED TOWARD THE BAGGAGE-CAR WITH A BUSINESSLIKE AIR.

Infant Indemnity.

She gave no reasons, she did not argue, she simply declined to pay for riding to Paterson. Did Conductor Tinney get nasty and act rude to a lady? Not he. Rule No. 8 of the rules and regulations of the New York and Erie Railroad, in effect March 6, 1837, read: "Rudeness or incivility to passengers will, in all cases, meet with immediate punishment." Conductor Tinney was not hunting for punishment. At the same time railroads in those early days had a rule in effect like No 5 of the rules and regulations of the Concord and Clermont R R, in effect January 1, 1850, which read as follows:

"If fares are refused to be paid, or checks delivered, they (the conductors) will secure themselves, if practicable, by the detention of baggage or by removing the person from the cars."

As the lady had no baggage, Conductor Tinney could not secure himself; all he could do was to bow courteously and pass on. He even went further than that. When the lady alighted at Paterson, it was Conductor Tinney who was on hand to help her down. He even went so far as to take the baby while she stepped to the platform. When she held out her arms for her darling, Conductor Tinney, smiling sweetly, said:

"Now, madame, when you pay your fare you can have the baby."

"I won't pay you a cent."

"Very well, then, I'll keep the baby.

It's a mighty fine boy and dirt cheap at the price."

With that he tucked the baby under one arm and started toward the baggage-car with a businesslike air. The lady followed, at first in a rage, then in tears. Then she opened a well-filled pocketbook, showing that she had not refused to pay for her ride from lack of means, handed over the exact change, and received her baby and a bow that Beau Brummel never equaled in his good-for-nothing life.

A Celestial Strategist.

Not all railroad employees are the equal of Conductor Tinney, unfortunately for the railroads. In 1877 silver was at a discount in California; that is to say, no one would accept more than ten dollars of it in one payment. One day a Chinaman walked into the Southern Pacific ticket office at San Francisco and asked for three tickets to Stockton. On being told that the price was ten dollars and a half, he counted out the sum in silver.

"You'll have to give me gold for these," said the agent icily, holding on to the pasteboards.

"Ah you too muchee smartee; you no catchee gold allee time," retorted the Chinaman, shoving the silver over.

"Come now, fork over the gold; you know the rule."

The Chinaman scooped the coins back into his pocket. Then, with a cold glitter in his almond eyes, he snapped:

"How muchee one ticket Stockton?"

"Three dollars and a half."

"You takee silver one ticket?"

"Yes."

"Gimme one ticket Stockton."

The silver was counted out and the ticket was tucked into an inside pocket

Again the Chinaman demanded: "Gimme one ticket Stockton."

After the second transaction had been brought to a successful conclusion and the silver transferred to the railroad till, the celestial traveler, for a third time, laid down three dollars and a half in silver coin and said:

"Gimme one ticket Stockton."

Picking up the third ticket, his face expanded into a heathen leer as he said to the discomfited agent:

"You too muchee smartee."

But speaking of railroad rules and the fidelity with which they are observed, the prize incident occurred on the Watford-Rickmansworth branch of the London and Northwestern in 1873. On this branch, five miles long, there was only one train, but it was operated on the staff system, in which the only rights recognized are conferred by the possession of a steel wand.

One day the solitary train was made up at Watford, and the passengers were shut in ready to depart for the junction, when it was discovered that the staff was missing. It had been forgotten and left at Rickmansworth on the up trip.

Now, the rules explicitly provided that the branch must be operated by the staff system; there was not a word about running trains on time-card rights or on train orders. Clearly there was nothing to do but send a guard on foot to Rickmansworth, five miles away, for the missing staff in order to release the train; therefore it was done, and the train finally proceeded strictly according to regulations, but two and a half hours late. Of course the passengers missed their connections, but what did that signify?

That was wonderful presence of mind, for an English railroad man, but not quite up to the exploit of Dennis Cassin, an engineer on the New York Central, who was coming south through Sing Sing with a freight-train in May, 1875. Cassin was following as close as the rules allowed behind a passenger-train.

He Gave Her the Water Cure.

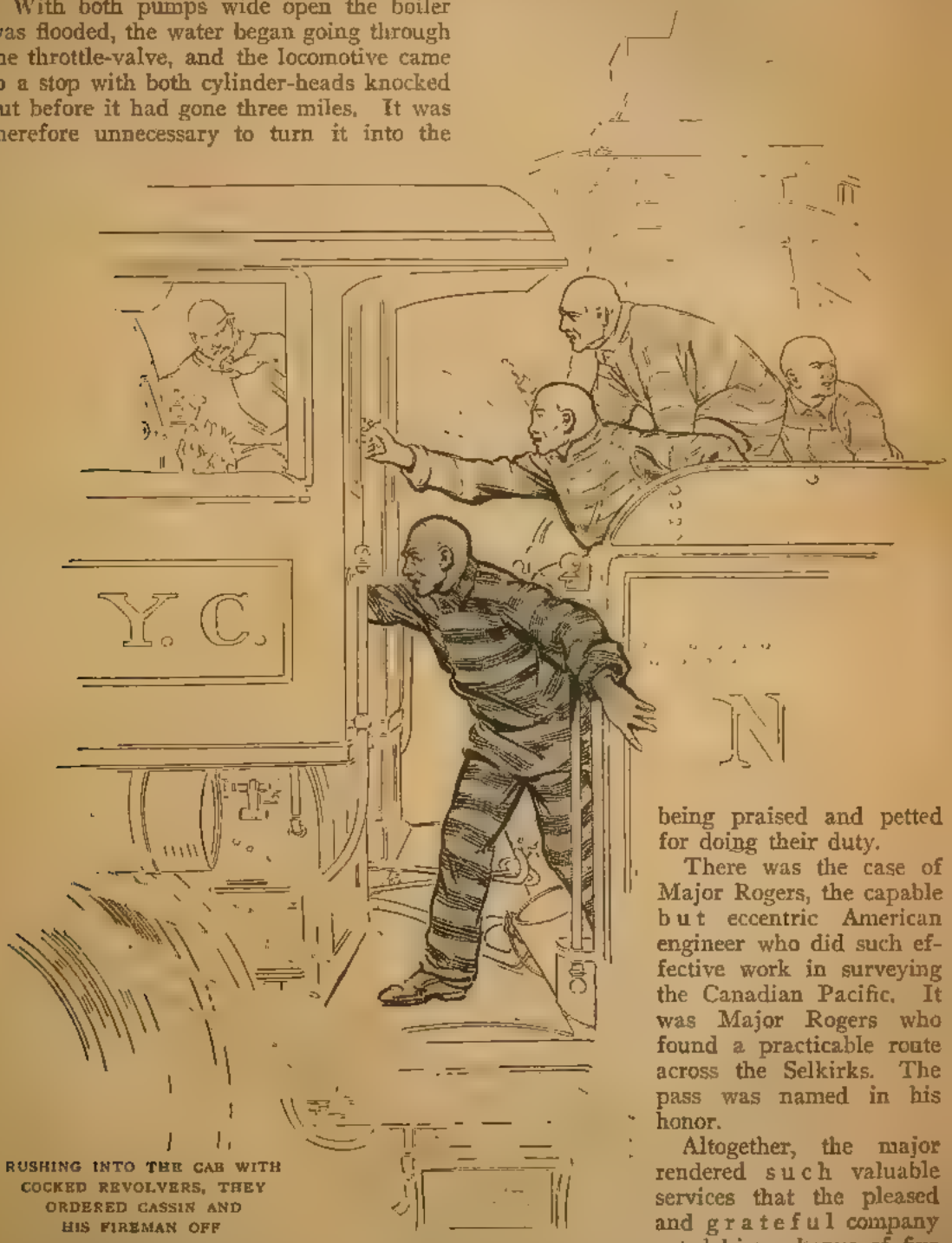
As he was running slow and had three gages of water, he shut off the pumps entirely; for in those days they stuck to the good old pump. He had barely done so when five convicts dropped from a bridge down on the tank, and rushing into the cab with cocked revolvers, they ordered Cassin and his fireman off.

It was a bold attempt at escape, which would have succeeded but for Cassin. He knew better than to attempt resistance, and he also knew something about locomotives. As he climbed off his seat-box, he reached down and turned the little lever beside the boiler-head, opening the pump-valves wide.

His act was not understood by the convicts, who instantly opened the throttle and shot down the track after the passenger-train. The prospects for a terrible

wreck seemed bright. With those reckless desperadoes in the cab it undoubtedly would have occurred if it had not been for Cassin.

With both pumps wide open the boiler was flooded, the water began going through the throttle-valve, and the locomotive came to a stop with both cylinder-heads knocked out before it had gone three miles. It was therefore unnecessary to turn it into the river at a switch, as had been ordered when Cassin gave the alarm.



RUSHING INTO THE CAB WITH COCKED REVOLVERS, THEY ORDERED CASSIN AND HIS FIREMAN OFF

If that incident had occurred a quarter of a century later Cassin would have received ten credit marks and a letter from the superintendent, and perhaps even a gold watch or something, but in the good old days railroad men were not used to being praised and petted for doing their duty.

There was the case of Major Rogers, the capable but eccentric American engineer who did such effective work in surveying the Canadian Pacific. It was Major Rogers who found a practicable route across the Selkirks. The pass was named in his honor.

Altogether, the major rendered such valuable services that the pleased and grateful company voted him a bonus of five thousand dollars. To the unutterable distress of the auditor, months rolled by and the check was not presented for payment. At last Major Rogers paid a visit to head-

quarters, and General Manager Van Horne took occasion to ask why the check had not been cashed.

His Only Testimonial.

"Good Heavens, sir! That is the only testimonial I have. I have had it framed and glazed, and it hangs over my bed. I shall never part with it."

Van Horne changed the subject. Next day he bought a fine gold watch, had a suitable inscription to the effect that it was presented to Major Rogers by the C. P. R., and so forth. The watch was kept in the general manager's desk awaiting Major Rogers's next visit.

On that occasion Van Horne took out the watch, showed it to the engineer without letting go of it, and read him the inscription. Then he returned the watch to the drawer, which he ostentatiously locked. The major's smile of delight faded into an open-eyed look of dismay.

"Why—why, don't I get the watch?" he asked.

"Certainly you get it whenever you present that check and draw your money."

BOOMING THE TOWN.

A COMMERCIAL traveler who was going through a certain State for the first time, alighted at a way-station which was named for a politician of national renown. He looked about for the town; but there were only a few forlorn houses. Then he looked about for the station; there was only an old freight-car—a small, old-style car, of 40,000 pounds capacity, rigged up with steps leading to its wide-open middle door. The traveler climbed up and peered inside. A pine table held a languidly-ticking telegraph instrument, and in a far corner the station-master leaned back in his chair, his feet on the telegraph-table. There was no one else in sight.

"Where's your town?" asked the traveler.

The station-master pointed with his thumb toward the few houses outside.

"What!" the traveler exclaimed. "Is that all the town you've got, and named for So-and-so, too? Well, where's your station?"

The station-master waved his hand toward the interior of the car.

"What!" the traveler exclaimed again. "Is this all the station you've got?"

At that the station-master removed his feet from the telegraph-table, brought the front of his chair down to the floor, and eyed the stranger sternly.

"Now, look here," he said, "that's all the town we've got, and this here's all the station we've got, and we are named for So-and-so. But you just bear this in mind, stranger, there's a boom on in this town; that's what!"

The commercial traveler's hopes began to rise. "Oh, is that so?" he asked.

"Yes, that's so!" the other replied. "Why, even the railroad is onto it! They're going to give us a new station!"

The traveler's interest increased. "You don't say!" he said.

"That's what they are!" the station-master proudly declared. "They're going to give us a new freight-car of 60,000 pounds capacity!"

—*Youth's Companion.*

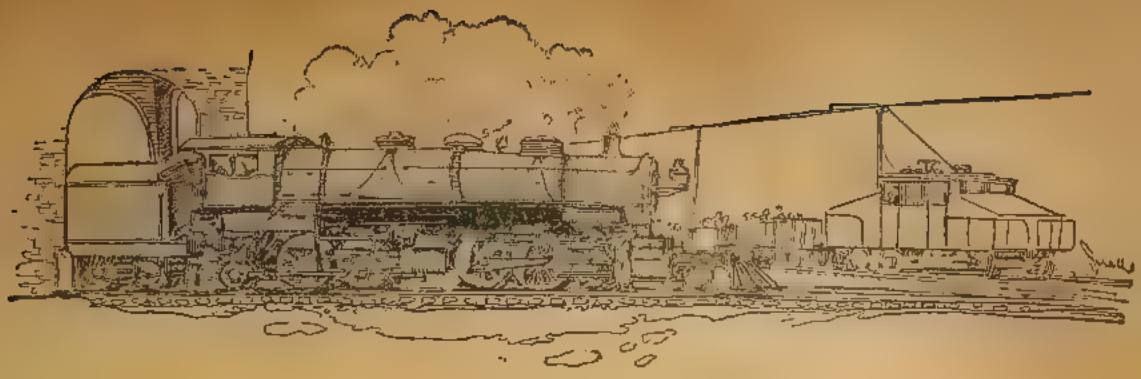
COURTESY IS CAPITAL STOCK.

DID you ever try to figure out the money-value of courtesy? Has it ever occurred to you that courtesy in business may be set down in dollars and cents; that courtesy makes money and that discourtesy loses it?

Let us consider courtesy briefly as an asset, as part of the capital stock of the company for which you work. Of course, the question has its higher, its ethical side, and we have dwelt upon this frequently in this magazine; but here, and now, let us make a practical application and see what courtesy means as a business asset.

Take an illustration: A man wishes to travel from one city to another. The fare is ten dollars. He may take his choice of two or more railroads for the journey. He drops into the ticket-office of one road. He finds a grouchy, tactless, impatient, discourteous clerk behind the counter. Owing to the manner of his reception, he determines to travel over another road. In the second office, he is greeted cordially, is treated politely, is made to feel that his business is desired, that the clerk, as a representative of his company, is glad to see him, glad to sell him a ticket, glad to do all in his power to make the journey a pleasant one.

Is it not clear that in the first instance discourtesy lost one company ten dollars, and that in the second instance courtesy gained ten dollars for another company? The ten dollars gained goes to pay dividends and interest and wages and running expenses. Courtesy, in this case, had a distinct money-value; it could be set down on paper in dollars and cents.—*The Northwestern.*



NOT ON THE FLIMSY.

BY FRANK CONDON.

A Discarded Item Which Failed To Show Why Walt Watson Lost His Courage and Vanished.

HALF a dozen editors skimmed over the sheet of A. P. flimsy, sneered inwardly, and, with the brief tightening of the lips that indicates editorial disgust, whisked the offending sheet into the capacious jaws of the waste-paper basket.

"Nobody hurt; nobody killed; nothing smashed, and nothing happened!" they said indignantly. "And those idiots put such trash on the wire for a real newspaper."

The cause:

Albion, March 9.

Itinerant telegraph operator, working extra, failed hand over train-order, but retrieved negligence and prevented collision between two passenger-trains by trick of daring and strength early to-day before he disappeared.

Train No. 2, west-bound and late, pulled out of Southwestern Railway station without the operator having delivered order to hold it for passing of east-bound train. Operator rushed along track, missed steps of last car and fell headlong.

Jumped up, and running caught rear, pulled himself onto vestibule-door, smashed glass and stopped train.

Just enough time get back to Albion when east-bound train rushed by. Operator has not been seen since

Valuable space in modern newspapers cannot be given over to such piffle. If the operator had missed the rear car; if the west-bound had plunged into the east-bound; if there had been a list of dead a column long as a broom handle, then, sneered the editors—then it would be worth the attention of the linotype men.

At the moment the insulting news item was being worded a man was sitting in the rear of a barroom thirty miles from Albion, with white linen bandages around his bruised hands and a glass of fiery liquid before him—a rather grimy young man, with the face of a very old man, and the shaking fingers of one who has burned his fires too rapidly.

This was Walt Watson, and he was the operator who had fled from Albion. If a confession could have been worried from him perhaps the "story" would have escaped the paper-basket.

Two comrades drifted into Buffalo during the Pan-American Exposition. They drifted out after the show had ended and the walls were coming down, and simultaneously they entered the service of the Southwestern Railway. One of them was called Stockbridge and the other was Walt Watson.

For a year they raced for advancement.

Stockbridge was a marvelously good operator, and in the course of time he began to attract attention from headquarters. He was as good an operator as Walt Watson.

Stockbridge moved up a peg. Watson remained where he was. Stockbridge knew why.

"Walt," he said one night, "we've got to separate. You and I have been living together since we left school, and I believe we're pretty fond of each other, so you'll forgive me if I say anything that hurts you.

"I've been promoted one notch. You'd have come right along with me if it hadn't been for one thing. You know what that is. You're just a little bit too fond of the stuff that has killed off better men than you and me, and the company knows it. I'm sorry, Walt, but there's nothing I can do. It's a fight that each man has to fight himself—and his friend can't help him."

"I know all that, Stocky. Never mind the preachments. What's the immediate cause of this W. C. T. U. meeting?" Walt asked sullenly.

"Just this," Stockbridge replied. "The Southwestern says I've got to give you up. I've got to pack up my belongings and live elsewhere. In other words, we're not to travel together from now on."

"For your advancement," sneered Watson. "Go ahead, then. There are no strings whatever attached to you. Perhaps I'll relish the change."

Stockbridge made no answer. He silently got his things together and walked out.

"So-long, Walt," he said, pausing in the door. "If you'll take a friend's advice, you'll cut out that stuff."

"It is a good thing," Watson said lightly —"a good thing for every man to mind his own business. It's really profitable."

That was the last Watson saw of Stockbridge for many months. He heard of him frequently, and little by little there grew up within him a feeling of resentment that gradually turned to dislike, bitter and abiding. Dislike gave way to hatred finally.

There was a girl. Watson and Stockbridge met her in Buffalo, and liked her from the beginning. They had bantered each other good-humoredly at first.

"I think I saw her first," Stockbridge laughed. You are hereby invited to attend the wedding, Walt, and if you're good you may wear a waiter's outfit and be our best man. Grace would look amazing good as Mrs. Joseph Stockbridge."

"Your wires are crossed in nine places," Watson had answered. "Grace and I will be doing that little parade down the main aisle, and you can stand in the vestibule and hold the flowers."

Walton was almost right—almost! Grace was fond of both men, but there was a pressure to her handshake with Walt Watson that Stockbridge had never felt. Little by little Walton forged ahead. He had kissed the girl months before Stockbridge had ever suspected, and when the little love-affair was at its most prominent stage the smash came.

The cause was the same that had brought the frown of the Southwestern upon its young operator. Walt called half a dozen times on his sweetheart showing the effect of liquor.

The girl was shocked and disgusted.

From that time on he played a losing game. He was supplanted in Grace's favor. Stockbridge passed him in love as he had passed him in business.

"He's a cur," Watson fumed. "I'll get him for that."

Watson became lax in his work, and eventually the Southwestern dismissed him. He secured new positions—and lost them. From a clean-cut young chap he changed into a shiftless, ill-clad loafer, and became untrustworthy.

Where he was known he could get no work. By changing his name and traveling he picked up a precarious living and secured the funds to buy his old enemy.

Stockbridge forged ahead during the years that followed. He married three years after he separated from his comrade, and the bride's name was Grace. Watson heard of the wedding, and cursed them. Time, instead of cooling his enmity for his former chum, bolstered and increased it, and alcohol did the rest.

In many a frenzy he promised Stockbridge a speedy end if the two ever met.

Then Watson drifted eastward by slow stages. By changing his name repeatedly he landed in brief-held positions. Unknowing, the Southwestern itself paid a frequent wage to the operator who jumped from place to place, and Watson smiled grimly whenever he noticed orders from the chief train-despatcher's office.

They were always signed "Stockbridge."

"He's up and I'm down," Watson reflected bitterly. "He cheated me and I'll get him for it."

He thought of a number of events that had occurred in the years between their friendship and the present. He remembered the days when he had applied for work on a dozen railroads, and of the mysterious information that had always filtered in before he secured the job. He had no references, and reports about him invariably

resulted in disaster. Once he had seen a telegram lying on an office desk. It read:

> Sorry. Operator Watson unreliable Bad record Drinks.
>
> STOCKBRIDGE, Southwestern.

Far out in Wisconsin Watson had been discharged without cause. A prying and envious coworker had interested in his past the company employing Watson. Stockbridge had again been forced to tell the truth. There were other matters, too.

"Not only is he up," Watson often muttered, "but he's not satisfied to let me alone. He's kicked me farther down every time he has had the chance."

By constantly nursing his animosity for Stockbridge and indulging in virulent outbursts of rage, Watson kept his blood hot, and the friendly feeling of the other Southwestern men for the chief train-despatcher only aggravated his resentment.

He landed in Albion penniless and hungry, and the friendly offices of the night operator secured him a temporary berth at the key.

A husky storm was tuning up for the night when the regular operator put on his coat. Watson was huddled before the meager fire.

"Better watch the line pretty close tonight," said the former. "There is a number of blocks, and Stockbridge is coming down on No. 15 with Miles."

Watson sat up with a start.

"Stockbridge?" he asked.

"The chief," replied the other. "He's been doing this inspection stunt regular of late."

"Great," Watson sneered. "I suppose he rides on velvet cushions in a Pullman private car."

"You're wrong," said the regular man resentfully. "He's no snob He rides with Miles in the cab when he comes out on No. 15. He's a mighty decent fellow, too."

Watson walked about the diminutive room when his companion had gone, looking over the tawdry fixtures and listening to the clicking of the key. He had borrowed a small advance from the operator. Its result was a brown flask that protruded from his hip-pocket and that made frequent stimulating trips to his mouth

"Stockbridge is coming on 15," he laughed bitterly. "He'd be surprised if he could look in here when she goes by and see his old friend at the key—the man he pushed down and out."

Watson found a heavy wrench. He stared at it a long time and ran his fingers over the heavy steel knobs.

"I'd like to use this on him," he growled.

"CK — CK — CK — CK — CK—" chattered the instrument.

Watson sank into his chair, and replied.

His fingers had long failed before the regular keys of a typewriter, and it was with difficulty that he could use them at all. Taking a rapid message on the machine was beyond him, so he toiled laboriously with pen and ink.

Suddenly he looked up from his work and stared at the pile of slips on the table. The key clattered and clicked impatiently, but Watson did not heed.

He read the message over again.

> Hold No. 2, east-bound at Albion till No. 15 passes.

He looked out into the night. The sleet had changed to a thick, feathery snow. He glanced at the clock, and noted that it was fifteen minutes of nine.

No. 2 was due in Albion at nine o'clock.

During the next ten minutes Watson paced back and forth. The grudge of a half-score years was working in his heated veins, and he was pondering wildly on the revenge.

In the cab of No. 15 Stockbridge was being hurled westward. No. 15 carried five coaches and paused for nothing.

East of Albion lay the worst curve on the Southwestern system—a long, waving "S" bend that shut out the track ahead.

"They'd never know!" the operator muttered hoarsely. "He deserves it! He spiked me! He ruined my life and kicked me down farther than I was! He's a cur, and he deserves it!"

Watson's face had grown deathly white.

Revenge was distorting his view, and the fire of his steady hatred was being rapidly fanned into blind, unreasoning fury and a wild craving for revenge.

Consequences mattered not at all. He saw Stockbridge in the west-bound cab! He saw the east-bound approach. He heard the grinding of steel and wood, the roaring of the released steam, and the passing of the man who had ruined him!

"He'll get it—he'll get it to-night!" he whispered.

The minute-hand was dragging upward toward nine. Watson stood in the door facing the inrush of snow and peering toward the west.

The faint moan of the east-bound struck him. A shiver ran down his body. The pin-point of yellow light appeared, growing larger each moment. In another instant No. 2 drew into Albion and slowed down.

Watson waved the "no order" salute from where he stood. His blood boomed through him and his head began to whirl. A passenger alighted and hurried away.

Watson turned and faced the east.

Somewhere around the long turn No. 15 was gliding along through the feathery snowstorm.

The end was only a matter of moments.

The operator stepped back into his room and pulled on his coat. The order slipped from his hand and fell to the floor, where it lay shining in a ray of light from the feeble lamp. Outside, the bell-cord hissed its command. With a shriek of steam and the jangle of the bell, No. 2 glided slowly forward, for she had stopped on a slight grade.

The feeling about Watson's throat tightened. His eyes were glaring and his hands were shaking so that he could scarcely lift his ragged cap to his head.

"I've done it!" he shouted.

His voice was half a groan and half the outburst of a maniac. Then he started to the door. The tail-lights of No. 2 were slowly swinging past him. He turned for a last look into the dingy office, and as he did so the glint of the fateful order, lying in the glow of the lamp, struck him between the eyes.

A sudden revulsion ran through him, and in another instant he was chattering with the deadly fear of one condemned.

His body grew cold, succeeding the wild, throbbing heat of the preceding minutes.

With a sudden snap, his tottering senses slipped back into place, and his disordered mind resumed the normal. He forgot everything in the world except that train No. 2 was passing out of Albion and that train No. 15 was rushing toward it.

With a half-articulate yell, he turned and started down the track in the wake of the rumbling train. That's all.

Very clearly and succinctly the little newspaper despatch tells the rest.

Watson stumbled ahead, fell several times, caught the rear of No. 2, and stopped the train.

He tumbled off into the snow and faded away like a wraith. No. 15 shot by and into the west—and the incident was ended.

The next morning Stockbridge was acquainted with the details. The regular operator at Albion was dismissed before noon.

"Who was the operator at the key?" Stockbridge inquired of his assistant.

"Dunno," that gentleman responded. "Somebody, but I don't know who, said it sounded like Clifford."

"Clifford," the chief repeated—"Clifford. Never heard of the man."

THE TICKET AGENT'S DREAM.

AFTER standing behind the ticket-window at Petoskey for three months, this is what the ticket agent dreams:

"Have you a lower for Friday night for St. Louis?"

"No, madam; but we have some beautiful uppers, with a colored elevator in connection."

"I just can't ride in an upper. Is there no way you can get a lower for me?"

"Not this season, madam; but we have under construction for next season a car that will have all the uppers built beneath the lowers, so there will be no uppers."

"Won't that be lovely!"

"Yes. They will also have pipes connected with and projecting out ahead of the engine, so that the air you receive will be in no way related to the air you get."

"You don't tell me."

"Yes. And when the sleepers are made up into a solid train for the north it will be known as 'The Ozone Special.' You'd better let me sell you an upper; it beats walking. Besides, we will furnish you with a beautiful yellow ticket which just matches the elevator."

"Do I have to transfer at Chicago?"

"Yes, ma'am, if you are a somnambulist; otherwise, you won't know that Chicago is on the map."

"I don't know just what to do, I am so afraid I can't get into an upper."

"We have a drawing-room for Cincinnati, if you would care to go there."

"But I'm not going to Cincinnati; I've just got to start for St. Louis, Friday night. I will think it over and let you know later. Give me a nickel's worth of pennies, please. Does this gum-machine work?"

"Yes, ma'am; everybody it can."

"Well, I'm stopping at Waloon Lake; I'll call you up later and tell you what I decide to do."

"Yes, please do; and if you decide not to go, call us up and let us know at once, and tell us why."—*Pere Marquette Monthly.*

How the Free Riders Sleep.

BY J. H. CRAIGE.

WHEN one thinks of the traveling hobo clinging by the "skin of his teeth" to the trucks, the roof, or the brake-beams of an express train going at the rate of sixty miles an hour and enjoying, at the same time, a repose akin to that which he might find on a feather bed, the idea —well, it just doesn't seem to jibe, does it? To entice Morpheus under such conditions seems about equal to playing a parley with sudden death, suicide, and foolhardiness written on the card.

From Cape Cod to the Golden Gate the hobo journeys by night and sleeps where most men would fear to travel in the light with their eyes wide open On the top of a car, clutching the grimy ventilator tubes with the grip of a vise, curled up in the vestibule of the blind baggage, or wedged above the whirling axles of the trucks—it is all the same to him.

The astonishing part of it all is that he usually comes through alive.

The Peculiar Instinct That Permits a Rider of the Beam to Sleep Soundly and in Safety When It Would Mean Instant Death to Lose His Grip for a Moment.

IGHT is the hobo's traveling time. He insists on riding a fast express. Securing a time-table of the road on which he wishes to travel, he picks out the fastest night-train, lies in hiding until she is ready to pull out of the station where he is waiting, and swings aboard her rear end, thus dodging the railroad bulls, who always hang about the front end of a train, watching the blind-baggage, where the inexperienced tramps try to ride.

Once aboard, he is safe until the next stop, which in the case of an express train seldom takes place in less than an hour or two. Even when a stop is made, perched on the roof or on the trucks of the rear car, the hobo is far from the lights of the station where the forward cars stop, and is practically sure of an undisturbed ride as long as the darkness lasts. During the eight or ten hours from dusk to dawn a good traveler can easily put from three to four hundred miles behind him.

Unsoftened by springs and cushions, the steady *thud, thud*, of a moving train has a most decided soporific effect on the human frame Add to this the effect of the darkness, and the fact that the tramp on the road seldom gets any repose in the day time, and you have a combination of circumstances which makes sleep during the journey almost inevitable.

It is only to be expected that death will claim a heavy toll among these free riders. Each year records from five to ten per cent of their total number killed or injured, but the survivors go on taking chances.

One philosophic hobo, whose partner I saw killed near Eugene, Oregon, last summer expressed the tramp's view of the matter very well. This was his comment over the mangled remains:

"Poor old Bill's gone. We'll miss him, but it won't make any difference to the world. There's plenty more where he came from. Next."

Strangely enough, he was "next." I heard a few days later that he had been ground to pieces under a Portland yard-engine, an ignominious end for a veteran blown-in-the-glass bo who had traveled over the road since his boyhood.

There are plenty more where he came from. Railroad reports show that in the neighborhood of ten thousand tramps are killed or maimed every year. Of these, perhaps fifty per cent are "good people," the title which the more expert professional tramps apply to themselves.

The other fifty per cent is made up of "gay cats" or occasional tramps; men who will work hard and regularly for a time, but who are periodically forced to take to the road, either because of labor conditions or through the call of *wanderlust*.

"Gay Cats" Only Amateurs.

Compared to the real tramp, the "gay cat" is a poor traveler. The drudgery of habitual manual labor has either stiffened his muscles or life indoors has dulled the keenness of his animal senses, and left him more a product of civilization and less a primitive savage than his brother, the full-fledged tramp.

He is slow of hand, foot, and brain. His perceptions are faulty. In the parlance of the prize-ring, "his judgment of distance is on the blink." He is poorly fitted for survival in the hostile and pitiless environment of life on the road, and accident overtakes him at every turn.

When he makes a flying dive for the hand-rail of a moving train, he often misses it and is thrown under the wheels. His faulty instincts make him try to occupy most insecure positions, from which he is jolted by the motion of the train. Frequently, deserted by that guardian spirit that seems to guide the feet of the wayfarer, he steps from behind a train, and meets his fate in the path of the express that is rushing down the next track.

The professional tramp who is a good traveler is a very different individual. Although seldom a powerful man, he is as lithe, alert, and active as a panther; a perfect type of the primitive cat-animal. Since the passing of the Indian tracker, there has been no type of man whose animal instincts and senses have been so perfectly developed. His judgment is seldom faulty, his hand never falters, and his foot never slips.

Death Claims Many Victims.

Despite his greater fitness to survive, however, as many "good people" are killed and maimed on the road every year as "gay cats," and because of the smaller number of regulars, the percentage of casualties among them is thus far greater than it is among the "cats." The reason for this is that under ordinary conditions the "cat" travels by day on freight-trains, where there is little temptation to sleep and little danger to him if he does, while the regular, adopting the habits of the feline whose traits he possesses, travels by night and sleeps in the daytime.

The expert bo disapproves of local trains and he has little use for freights, except for an occasional nap in an empty box car, if he happens to find one going in his direction.

Perhaps a natural conclusion would be that the first time a hobo succumbed to sleep in such places as he generally travels there would be another gap in the ranks of the tramp army, but here the subconscious mind, that most discussed and least understood of psychic phenomena, comes into the case.

Feats of the Subconscious Mind.

According to the best authorities, both medical and psychological, the subconscious mind lives at the back of the brain, just over its near relatives, the mind centers which govern the beating of the heart, breathing, and other involuntary functions of the body.

In the subconscious mind habits are formed. It is by careful education of the subconscious mind that the boxer acquires the ability to perceive an opening and to strike simultaneously. If he were compelled to stop and think before hitting, his opportunity would be lost, but he has formed the habit, and the eye perceives and the hand strikes without conscious mental action on his part.

The subconscious mind forms the connecting link between the conscious, reasoning mind, and the brain centers which gov-

ern involuntary action. The lower forms of life have only the ganglia governing the involuntary processes. In addition to this the higher animals have also the power of forming habits necessary to their preservation.

Man adds to these the ability to reason and plan, but in the case of civilized man the power of reason has so far removed him from the exigencies of animal existence that he has lost through disuse the subconscious alertness so prominent in the make-up of the savage and the wild beast.

By careful education and constant exertion of the will, the civilized man can acquire to a certain extent the subconscious alertness enjoyed by his savage ancestors. It is by education of his subconscious mind that the hobo acquires the facility of sleeping in an insecure perch on a moving train without suffering invariable and instant annihilation. He does not acquire this faculty through design or by choice, but by necessity and with fear and trembling, as most other faculties necessary to existence are acquired.

Keeping a Grip While Sound Asleep.

When a tramp begins to ride trains at night, his constant fear is that he will fall asleep. Stretched out on the roof, or crouched on the trucks, he sits shivering, flexing his muscles, shaking his body as much as his situation will permit, pinching himself, and resorting to every possible expedient to keep awake, in deadly terror lest sleep relax his grip and he fall to a speedy and horrible death.

Perhaps during his first few night-journeys this terror is so intense that it overcomes his fatigue and he stays awake, or he sleeps so lightly that he does not know that he has slept.

During these journeys the hours of intense fear make a tremendous impression upon his subconscious mind. Later he happens to travel with an old-timer, and sees the careless abandon with which the veteran allows himself to sink into slumber. Also he observes that nothing happens to his comrade, and his terror lest sleep overtake him is considerably abated. Still, the fear education continues, although in a more moderate form.

Gradually his fears fade away and he allows himself with less and less misgivings to doze and nod on his nightly rides, until at last he reaches the stage where he stretches himself out for a nap every time he has a chance to make himself tolerably comfortable on a moving train, with all the carelessness of the veteran whose slumber aroused his admiration in earlier days.

Change of Speed Dangerous.

Then the education of his subconscious mind is complete, and he is able to hold down anything that turns a wheel, asleep or awake, with a certain amount of security. There are two psychological moments, however, during which it seems to be impossible for the average man to educate his subconsciousness to remain on guard.

One of these is when the train on which the tramp is traveling changes its pace or motion, while the other is when the sleeper awakes. Though we can educate the subconscious mind to perform almost any regular series of simple movements or adapt itself to almost any conditions, without the guidance of the conscious mind, as soon as the regularity is broken or the conditions change the operations of the subconscious mind cease.

It is a peculiar fact that if a tramp falls asleep on a train traveling at a rate of thirty miles an hour, a change in speed to sixty or to fifteen miles an hour will often place him in serious danger. Either the shock to his mental processes will be sufficient to arouse him, or he will sink into deeper slumber, in which nothing is more probable than that some serious accident will befall him.

One of the most shocking accidents of this kind that I have ever witnessed occurred last summer near Battle Mountain, Nevada. It was just before dawn, and a great many tramps were riding the train, making their way toward Reno, to the Jeffries-Johnson pugilistic battle which was scheduled to take place in a few days. I myself was riding a rear truck, and many other tramps were strung along the whole length of the train.

He Lost His Hold.

The trucks on the Union and Southern Pacific Pullmans were not designed to accommodate a tall man with comfort. I was far from sleep and was having a most miserable time. As I turned over for about the nineteenth time to get some of the

cramps out of my body, while I blessed the trainmen who had made it necessary for us to ride the trucks, the emergency brakes suddenly screamed on, and our speed, which had been previously about thirty miles an hour, was cut down to almost a walk. A few seconds later the brakes were released and the train proceeded at its former speed.

A short distance out of the town we struck a curve, which jolted every one sharply to the left. Instantly a series of ear-piercing screams rose from under the car ahead. Then they stopped and a red trail appeared on the ties below.

When we stopped, some one inside the train who had heard the cries caused a search to be instituted, and a bundle of red rags was found tightly wrapped around one of the car's axles; all that was left of a tramp who had been riding on the truck. A blue-lipped, blood-spattered man who had been riding the same truck was discovered near-by, too weak from fright and horror to crawl out from under the train.

A High Dive.

According to his story, the two had been traveling together, and were both asleep on the truck when he had been awakened by the jar of the emergency brakes. He was composing himself for another nap, when he noticed that his partner was reeling dangerously in his seat.

He was about to reach out to awaken him when the train struck the curve, and toppling back, the sleeping man allowed his coat to become wrapped about the revolving axle.

Despite his struggles and screams he was unable to free himself, and was slowly drawn into the whirling mill. I heard later in San Francisco that the survivor had gone mad.

When a man is very alert or the change of pace or motion of the train he is riding is very pronounced, he usually awakes. In doing so he runs scarcely less risk than the man who sleeps on, for the moment when the alert subconscious sentinel is dismissed and the drowsy sentinel of awakening consciousness takes charge is one of great danger.

A man's first impulse when aroused from sleep is to stretch and yawn, and there are times when these may bring the most dire results. Some time ago, at North Platte, Nebraska, a sudden awakening involved me in a farce-comedy that might very easily have been a tragedy.

The train, on the roof of which I was traveling, stopped suddenly and with quite a jolt. The first thing I can recall is awakening with a gulp from that terrible race-old falling dream, and reaching out frantically for something to stop my descent. Then I lurched off the train and began to fall in sure enough earnest.

Luckily I lit on a truck piled with mail-sacks awaiting an east-bound train and was not hurt in the least. However, I came within an ace of falling on one of North Platte's leading citizens. That gentleman let out a bawl that would have done credit to one of his own steers, and before I had made up my mind as to whether I was still dreaming, or had really had a fall, one of the town constables appeared on the scene and escorted me to the village lockup. The next day, as my prosecutor did not appear, the same rural constable who had arrested me escorted me back to the railroad and invited me to beat it.

Another of the chief causes of disaster to tramps is liquor. Night riding is almost always cold, and often the tramp has no more nerve than he needs, and resorts to Dutch courage. Every railroader sees so many near-accidents to drunken tramps, that he is apt to wonder that there are not more casualties than really take place.

Almost all tramps who have the subconscious faculties of the mind highly developed are men of strong will and individuality, whose mind and purpose are so strong that it would seem that they rule their actions even when asleep by sheer force of character. However, I have seen some startling exceptions to this rule.

Strange Case of Denver Joe.

Perhaps the strangest case that ever came under my notice was that of Denver Joe, a child of the road whom I met in Winnemucca, Nevada.

Like many road monikers, his title was misleading. He was not from Denver at all, but from Los Angeles. His age was indeterminate. He looked sixteen, but was probably much older.

It was only a few days before the historic pugilistic battle at Reno, a hundred miles or more to the west, and the boes were flocking over the road in such number that the distracted railroad authorities in an en-

deavor to stem the tide were stationing "sapping parties" of husky railroad "bulls" and deputy "bulls" at every division station, armed with clubs, and with instructions to "give it to the tramps good and plenty," after which they were to jail the remains.

Numerous tramps were hanging about the town waiting to catch the first mail-train out, which ran through at about eight o'clock in the evening. I had seen several of these constables, lurking about the station with large business-like clubs, so I had about decided that I did not want to catch that early mail.

There were a dozen fight specials coming through that night anyway, and I knew that the bulls would become sleepy before I would. I tried to warn some of the tramps whom I knew, but got a laugh for my trouble, so, hunting up an unused feed-bin on the side of the station overlooking the track, I worked loose a board and climbed in to await events.

I had scarcely arranged things to my liking when the board was pushed back again and Denver Joe wiggled in, bringing with him numerous hand-outs that he had collected from the Winnemucca back doors.

All he said was: "Help yourself to whatever you want, partner, and wake me up when you go." Then he lay down and was asleep in an instant. As he told it afterward, he had been traveling steadily for two nights and a day, and had been kept so busily on the move by the Winnemucca bulls that he had gotten very little sleep in the last forty-eight hours.

On the Observation-Car.

While I was helping myself to such of the hand-outs as I fancied, the eight o'clock train came through, and I saw, with a good deal of very heathenish delight, I must admit, several of the gentlemen who had scoffed at my advice get a thorough taste of the sap-sticks.

When the tumult and the shouting died I took a nap, and awoke somewhere near midnight, as closely as I could tell by the stars. It was cold and the station was deserted. A train was approaching. When it stopped the last car was about even with my feed-box.

"Wake up, partner," I called, and reached over to shake my young friend, expecting to have considerable difficulty in waking him. To my surprise he rose immediately, without a word and without signs of weariness.

"Come on," I said, and we climbed out of the box, went around to the far side of the train, and climbed to the roof unnoticed.

The coach on the rear end was an observation-car. Riding on its roof was horribly cold and disagreeable. I went back to the rear end of the car and found that I could climb down to the observation platform. I went back and shook my friend.

As before, he came without a word. We climbed down, found some chairs and an Indian blanket, and traveled all night quite comfortably. In the morning we rode into Sparks, the end of the division.

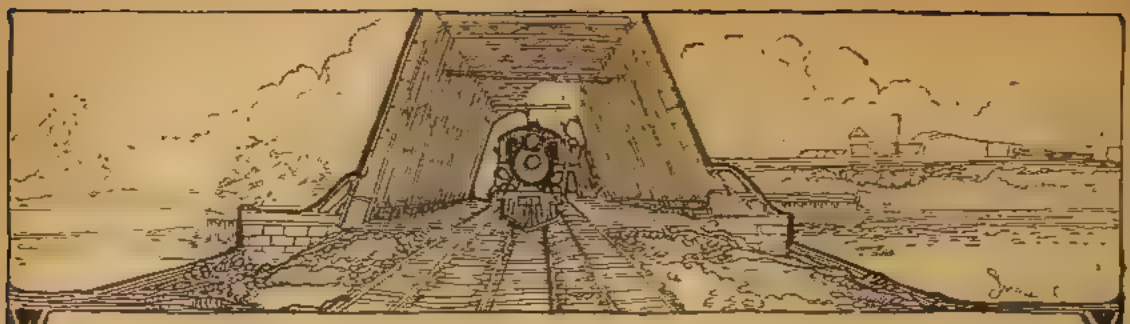
We both slept through the greater part of the journey and awoke at about the same time, shortly after dawn. When my companion had rubbed his eyes and looked around, he asked with mild curiosity where we were and how we got there, to which I responded that he ought to know as much about that as any one.

He replied that he certainly did not know where we were, and furthermore, that he had not slept since he had left Ogden, Utah, which by his computation was two days and two nights before he had met me. He did not seem to remember anything since he had struck Winnemucca the morning before, except meeting the detective.

He wound up with the assertion that the S. P. was a mighty poor road to ride on, to which I agreed, and once more demanded to know how he had got where he was.

When informed, he took the matter very philosophically, and told me that he had always walked in his sleep, and that when he was little his mother could make him do anything by speaking to him when he was sleeping, from which one might infer that that was the only time the old lady could influence him in any way.

We were separated going through the snow-sheds on the road to San Francisco. I was combed off by a State policeman at the first stop, but he got through by crouching behind a dining-car ventilator. I simply went up to the head end and got into a day coach, I secured a hat check and rode through to Sacramento without question. When we got there Joe was not on the roof, and he did not show up in San Francisco, though I waited at the Market Street depot every day for over a week at the place we had agreed upon.



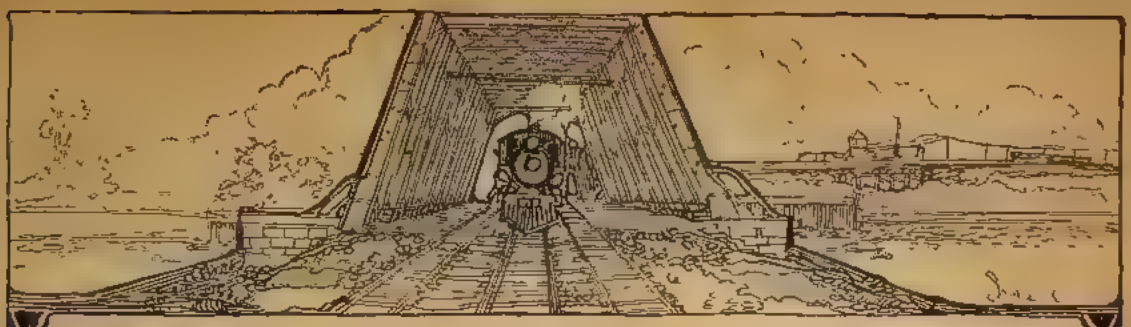
THE FEVER OF THE RAIL.

BY LOUIS EPHRAIM BOYER.

Written for "The Railroad Man's Magazine."

THEY may talk of fevers, chills,
And a thousand other ills
That go to make the doctors' human code;
But the worst I know of yet—
Makes a fellow fuss and fret—
Is the hopeless, restless fever of the road.
With the smoke and grease and dust,
And the cinders, oil, and rust,
And a million funny, friendly railroad smells—
And the lights—white, green, and red—
Runnin' through a fellow's head—
Once he's worked there—why, he won't work nowhere else.

They may have their tariffs, rates,
And their traffic-sheets and plates,
And the policies that seem to run the line;
But the whir of No. 2
When she's twenty overdue,
To me is like the joy of rare, old wine.
And I love the busy yard,
With the engines chuggin' hard,
And the whistles, bells, and sweatin', swearin' crews—



And the north- and south-bound freights,
And the sidin' clearance waits,
With the firemen a-cussin' at the flues.

There's the traffic's steady stream,
And the hissin' of the steam,
And chugs and roars and other nameless sounds;
And there's "locals"—always due—
With an extra "work" or two,
And crews a gettin' ready for the "rounds."
There's the wheezing noise of "air,"
And the headlights' guiding glare—
There's the station whistle of the through "express";
Oh, the clicking of the wheel
On the burnished strands of steel
Is as soothing as a mother's soft caress.

When the "caller" comes in vain,
And another's on my train,
And I'm far beyond the reach of discipline;
When I take my last, long run
On my final 31,
And I'm not laid out by heated box or pin;
When I've made my last mistake,
And old Time throws on the brake,
And the boys they miss me when they pass the cup—
I won't heed the semaphore,
But I'll walk right in the door,
An' I'll git a job in hades firin' up.

Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 34—The By-Gone Combination of Telegraph Operator and Station-Agent Who Was Paid for Overtime Only When There Were Thirty-Two Days in a Month.

I READ a tramp or vagrant article the other day, on the old-time country physician, and the old-time country circuit-rider, pioneers of the Middle West, who are no more and whose places can never be taken, because there are newer methods and newer manners and "all things change."

It brought to my mind the old-time combination telegraph operator and station-agent, who is likewise passing. He was part of the same community as the doctor and the circuit-rider. He filled his niche and is fast being modified and modernized by the newer order.

I remember him as a busy, important man in his community—a man harassed and haunted by a multiplicity of detail, fussy and arbitrary, but withal closer in touch with the affairs of all the people about him than either the doctor or the preacher.

On our line the station-agent is no longer doing the railroad telegraphing.

It is done in towers five miles apart, and by three men on eight-hour shifts.

On the same road twenty-five years ago, there were telegraph offices only every ten or fifteen miles, and the old station-agent with a paralyzed arm and St. Vitus jerks took the orders with one hand, billed out freight with the other, held a mail-bag under one arm, the express bills between his teeth, and fastened the checks on the trunks with his toes—all at the same time in one hocus-pocus movement that was quicker than the eye, and that would have aroused the envy of the nimblest shell-and-pea artist.

On our road he is now only a memory. His present-day prototype gives the movement of trains no heed.

The telegraphing has fallen to the man in the tower, who does nothing else.

The towers are furnace heated and built of steel and cement. They are light and airy and comfortable, but always located at the edge of the town, or a little ways out where passing tracks are possible.

"This is a pleasant place to work," I assured the first-trick man.

"Is it?" he asked with a Missouri accent.

"Cheerful surroundings," I added.

"So I am informed," he answered with a suspicious assent. "All the same, if you had to rivet your gaze on the said surroundings eight hours every day, three hundred and sixty-five days in the year, for the rest of your natural life, you wouldn't enthuse over it. You wouldn't gush any—you wouldn't slop over about it.

"Scenery is the commonest thing there is to a tower job; but I never heard of an operator wanting to stay with a tower job on account of the landscape. I never heard of one hating to leave because he could get a good view of a Turner sunset, or feast his eyes on a Rosa Bonheur flock of grazers. Did you?"

"Anyway," I persisted, "you haven't anything else to do but telegraph."

"We have to walk out here, that's a mile and a half, and we have to walk back."

"But you only work eight hours."

"Add another hour or so getting to it, then throw in Sunday, and you have about the same as ten hours per day."

"The company should arrange to bring you out here in a coupé. Has any one ever suggested it to 'em?"

"What do those soulless wretches tell us?" he said. "This: Whenever little Willie's legs grow weary, other pedestrians are eager and waiting."

I tried the second-trick operator.

"An operator has a pretty flossy job these days compared to twenty-five years ago," I ventured, as an introductory observation.

"Huh? He has! Any one who thinks a tower job's a snap ought to be led to it. What do them brakemen get? Anywhere from eighty to a hundred a month. They don't have the responsibility an operator has, and they don't work much longer, and we only get sixty. We got to be educated to do this work. Any one can be a brakeman. A second-trick man goes to work early in the afternoon. All he gets to see is the parade; no big tent for him. Misses everything. He don't get off until eleven or twelve o'clock at night. Can't go anywhere or see anybody. Hasn't any afternoons or evenings to himself."

With this melancholy reflection, he tilted a dinky cap back into an ambush of riotous hair, adjusted his balloon pants so as not to impair the crease, and slid down in his chair. Then he fished up a harmonica and played, with fiendish vigor, "Turkey in the Straw," adding the "Virginia Skee-daddle" for extra measure.

WHEN A BOY WANTED TO LEARN TELEGRAPHING HE HUNG AROUND THE DEPOT.

The next number on the evening program was a song with both guitar and catarrh accompaniment. It was a sad song as I remember it, about a maiden fair, and I think she had hair; eyes, too, if I am not mistaken. She was waiting for him somewhere, in the agony of despair, with heart-strings to tear, but with a devotion that would wear, with a love nothing could impair; whereupon I slid out. It was too pathetic.

ANY HOUR HE WAS SUBJECT TO THE CALL OF THE STRANDED CONDUCTOR.

"You have a pretty nice job, haven't you?" I asked of the third-trick man. "Only eight hours in this fancy tower, and nothing else."

"'S'nough!" interposed the third-trick man, poising a halting hand. "Some one's been stringing you. Some night when the wind or the rain or the snow or the sleet is cutting high jinks, it's worth a day's labor to get out here, to say nothing of the eight hours and the return trip.

"Say, when a man goes to work at eleven o'clock at night and quits at seven in the morning, he's got to sleep the rest of the day, ain't he? He's got to commence hot-footing along about ten to appear at eleven. Where does he get any time? When you say 'nice' you got the wrong word. Try it again! There's a pocket Webster in the second drawer. Might as well work all night, as to have to poke out about nine-thirty or ten.

"The only eight hour snap for any man is from eight to four, daylight. Blocking trains is particular work, and when you're here, you're here. Don't forget that. You haven't a minute for anywhere else. You never see any one, and it's lonesome work; with only a block wire and the despatcher's wire, we can't even hear anything of interest. You can't tell us we are better off than our grandfathers. Tell it to Sweeney!"

"What's the chances of promotion?" I asked all three of them.

Chorus:

"None. From third trick to second, to first. Once a tower operator, always a tower operator!"

"Anyway, it's nice and quiet, and you haven't the public to annoy you."

Chorus:

"That's it, solitude! It's deadly lonesome! Come on, oh, you populace! Welcome to our midst, oh, you rabble!"

Now, I can assure the tower operator that the pioneer operator of a generation ago was not so keen for the association of his fellow man. Fact is, he did not have much else.

Taking train orders and noting the movement of trains was only incidental to him.

He was either station-agent or first aid to the agent wherever located. Usually he was the whole works. He was hung with titles and marks of eminence like an Oriental prince. He was station-agent for the A. and Z. Railway, agent for the Jeffersonian

Express, and manager of the Eastern Union Telegraph Company. The combined and aggregated salary was—Counsel objects; question irrelevant. Objection sustained.

Anyway, none ever accused the Eastern Union of paying any of it.

The genius who invented telegraph-schools was then an infant on the bottle or a truant schoolboy.

A BOILER-VOICED PATRIOT PROCEEDED TO ENLIGHTEN THE THRONG.

The modern institutions of learning wherein a healthy lad comes in fresh blown from the farm and hands over ma's butter-money for a course in telegraphy, and gets in return a scroll worded in five colors, a Latin phrase, and a personal eulogy signed by six grave and learned professors and titled examiners, had not then been evolved.

When a boy wanted to learn telegraphing he hung around the depot until the agent put him to sweeping out, toting the mail-cars, and lugging in the coal.

After a year or more, he was ready for a job. He went to it eagerly, unadorned with pants that flapped like a sail, unornamented with a dinky cap, and unembellished with a flowing necktie of seven colors. But he knew about what to do when he landed. He knew how to handle a coal-dust fire so the stove would not blow up. He knew how to truck freight and heave sample trunks, bill out freight, and keep the office accounts.

To-day, he is conducting the railroad company's business at the important points. Hard knocks made him fit.

In the *élite* and luxuriant present it is from the perambulator to the hammock, to cushions, to the padded-leather office chair, while in the long-departed days the route lay via the coal-hod and the two-wheel truck.

The old time telegraph-office in the depot lifted many a town to a boasted eminence over surrounding towns. It was the standard recognition of importance, and they were only here and there. It was an outlook upon the world. It was the means of quick communication with all other important centers.

The man at the depot who could sit at the desk in a din of clicks—there were usually two wires, one railroad and one commercial—and out of the confusion of noises could reduce a message to writing that any one could read with the help of the school-teacher and the postmaster, was looked upon with awe and respect as one marvelously endowed.

There were no telephones. That miracle came later.

There were but few daily papers and they were five cents straight, preaching the party doctrine the same way. The people were rampantly partizan. Elections were of the knock-down and drag-out variety, where every man was voted—the stripling youth, the senile aged, the half dead, the lame, the blind, and the halt.

I think every old operator will recall election nights at the country depot crowded with patriots from all around to get the returns.

The waiting-room and office were stuffy and heavy with the breath of politics, and the old oil-lamps burned with a sickly red from a starvation supply of oxygen.

The old political wheel-horses and bell-wethers hung close over the operator, the

snort of battle still in their nostrils, and the scent of warfare on their breath.

Then came a portentous "Hist!" while the operator bent low over his instrument, followed by the suppressed exclamation, "It's coming."

The operator traced something across the clip—a strange chirography like unto Chinese or Timbuctoo—but he translated it to those about him, whereupon a boiler-voiced patriot proceeded to enlighten the throng by reading aloud with impressive oratorical effect.

"Montpelier, Vermont.—Early returns indicate that Vermont has gone Republican by the—"

A yell of triumph drowned the rest of it. He raises a silencing hand.

"Hure's a nother'n."

"Jefferson, Mississippi.—Early indications are that Mississippi has gone Democratic by the—"

Triumphant yell No. 2 anwered yell No. 1, quite equal in volume and intensity, and honors seemed even.

At 10 P.M. he sent a message to the State capital notifying a waiting world that Liberty Township had gone Democratic by 23.

Then came some scattering returns from New York State, and the leaders figured and speculated, "If we come down to Harlem River with so much, we'll carry New York."

The dispute and argument raged over the operator's head, until there was a sort of nebulous conclusion that somewhere on the line of the Harlem River an irresistible force was about to meet an immovable body with the usual scientific result, and his majesty take the hindermost.

Along about three or four in the morning the crowd thinned to a remnant, and the operator, with spent vitality, announced "No more to-night."

Then he blew out the lights and staggered for the outside and gulped in the pure night air like a famishing creature.

An American citizen, heavily burdened and fearful for the fate of the Republic, followed him for confidential information. He had yelled long and lustily. He thought the operator might know more than had been read aloud.

"Do you think we're beat?" he asked in smothered, confidential tones.

"Looks like it," grunted the operator.

"Ain't that tough? I'd ruther lose a hundred dollars, I tell you, 'an have 'em beat us."

He turned back, and the gloom of the night swallowed him up.

Note that fine American sentiment. Note that spirit of sacrifice. Note that unfaltering devotion.

That same fellow had remained perched upon a fence all the afternoon receiving alternate deputations of workers from both parties, and was not "persuaded" until late in the evening, when he went up, personally conducted between two wheelhorses, and voted. He remained for the returns with the old operator to the last minute, and feared the worst.

Viewed commercially, getting the news for the people netted the old operator just two dollars. The sovereign citizen got no more for the part he played. Two dollars in this far-away day was a lump sum, and people had to have the telegrapher's services or remain in darkness.

The old operator had no levers to throw. If he got an order for a train he went out and hung up a red flag. If he was occupied at the moment with other duties he could easily forget it. Of course, the instructions were to put out the flag immediately on receipt of the train order, and there were specific rules to that effect; but a busy man in all ages of the world will postpone incidental details from time to time and in the end forget.

Usually as the engine whistled for the station or came thundering by, he would remember the order and make a wild dash for the flag. This, as a rule, got the conductor. As the engineer did not sign the order or have it read to him, but had only an impersonal interest in it, the conductor was all that was necessary, anyway.

Now and then, the train got away entirely, but so long as nothing happened, and as there were no State or inter-State commissions to meddle, it wasn't such a serious matter.

After a time, some genius conceived the idea of having a tin wing-signal attached to the building outside and turned from inside the office by a lever, a rope, or a pulley, and save the operator from undermining his constitution by exposing himself to the elements without while hanging up a train-order flag.

This raised the mortality rate among operators, and placed them in the insurable class.

Great forward strides were made about this time. It was found that if a bay window was put in the telegraph office an operator could see a train coming some distance away. Simple idea, isn't it? Nevertheless, the early depots were as flat as the first school-house or the pioneer church, and were planted within about six feet of the rail, so that the passengers on and off

The old operator resented the invasion, opposed the onward march, and showed his opposition by just tying the new apparatus down, giving everything a clear track, and went ahead expensing, booking, way-billing, and blundering as before. Discipline finally broke him of the string habit.

We are now back to both the old and the new.

A YOUNG MAN WITH RAH ! RAH ! CLOTHES, PERSONALLY CONDUCTED BY A YOUNG, DEAR THING.

were jammed into one unmanageable and immovable mass and more or less endangered whenever a train came in. Some of these buildings remain in service to the present day.

The world continued to move, for very soon another signal sharp conceived the idea that if the train-order signal showed red all the time and the voluntary act of the operator was required to show white and permit a train to pass without stopping, there could be no failure on the part of the telegrapher. Negligence and forgetfulness would stop the train, thus reversing previous conditions.

We use the semaphore, and we also hang out the little red flag.

In this day of the block and tower, the train-order has been reduced to a scientific brevity, thus:

"No. 32 meet No. 41 at BJ tower."

A generation ago the trains were minutely described by thumb-print measurements, and were then formally ordered to "meet and pass at Grimes Siding."

Get the thought. If only the word "meet" had been employed, two trains would have stood at Grimes Siding nose to nose in a technical deadlock. Having "met," no provision was indicated for fur-

ther movement. By adding, "and pass," it was at once clear that one train should go by the other.

Do not smile, please. This is a mighty serious article. It was a good many years before the word "meet" was officially made and finally understood by all to mean "pass."

Fine point that. Shows how a railroad by education and perseverance can put one over on Noah Webster.

The old-time side-wheel operator whose sending was like the water from a jug, would commence repeating a train-order sitting down. He would gradually come upright, however, until he was on his tiptoes and bending over the table. He would hit the word "pass" with fifty dots, and would fall over in a dead lump on the dash in "a," and call up the reserves for the concluding dots in the two "s's." When it came to hurdling the word "pass" the awkward "mitt" made it a prolonged, agonizing, acrobatic feat.

It was absolutely necessary to eliminate it to save laying out the trains.

Then there were the happy holidays for the old operator, when every one went somewhere, when all the trains were late, when every one was getting a package or sending one away, when he was overwhelmed with a beseeching, complaining, expostulating public, until he blasphemed Santa Claus.

But with all this there were happy moments, for at regular intervals he would receive a "death message" for some one in the country or in a near-by town, and with an office message to deliver by special messenger. There were no telephones. Thereupon the old operator would sublet the delivery contract, or hold the message until night and go himself, and clear two dollars and fifty cents through the special delivery service which, while of doubtful promptness, always came high.

That source of revenue has been eliminated. The telephone has woven its web to every man's door, and the "death message" is phoned. All that comes back is, "Thank you."

When there was no night office, the old operator was considered always on duty.

If a train crept into his station in the night, and got on a siding and could not see the headlight of the train it was to meet, some member of the crew would go prowling about the village to rout out the operator. Any hour of the night he was subject to the call of the stranded conductor. He had no hours. He got no extra pay. The only "overtime" that came his way was when there happened to be thirty-two days in the month.

If any one had told that the day would come when nine hours would be made the legal limit of one day's labor for the railroad operator, he would have poohpoohed, taken to his prayers, and figured on the end of the world

Then, again, there was the public, the great public—always on duty, always insistent.

Many a night the old operator, faithful and accommodating, has laid his head on his pillow to be rudely awakened after the first hour's deep sleep by a vigorous thumping on the front door.

He collects his drowsy senses, is annoyed but not alarmed, and answers from the second story window.

"Bill Jones wants you to come to the depot right away!" comes the voice from below.

"What does he want?"

"I dunno. He says it's important!"

"Anybody dead?"

"Nope."

"Think he's lookin' for something or somebody?"

"I dunno. He says for you to come right over. He's waitin' there for you."

"All right, tell him to wait. I'll be over after a while."

Then the old operator, with a little of the spirit of human cussedness and resentment still surviving within him, turns over and falls into a deeper sleep than ever, while Bill Jones shifts around on a hard, unfriendly truck, blinking at the dog-star, seeing the moon slip behind the great beyond, and, at length, slinking away after a prolonged session, with meanness in his heart and maledictions on the head of the railroad man that had no accommodation about him.

Nevertheless, the old operator answered the night call many times for mower parts, binder repairs, and catalogues, for the farmer comes into the country village only after he has done his sixteen hours on the farm, and he is not backward about calling any one out to serve him. The merchant and blacksmith answer the call with cheerful servitude, for they need his patronage. The old operator was the first to rebel. He was the pioneer who howled out the slogan,

"There's a time for work and a time for play."

Time works changes. The old order passes away. One day the store-clerk came over with a package of collars and cuffs and expressed them to Troy, New York. When they came back they were whiter and more shiny than the finest china, and they were exhibited in the store window as a marvelous modern achievement in haberdashery.

Then a bold and venturesome groceryman received a shipment of fresh oysters direct from Baltimore, where nothing but the canned product had been before. The community began to wake up.

Then the school-teacher dropped in and asked the old operator if he had read anything about the wonderful invention of a shrewd Yankee up in New England by name of Bell?

"It's called a telephone. It's a contrivance where two people can be a mile apart and talk to each other and hear just the same as if they were in this room!"

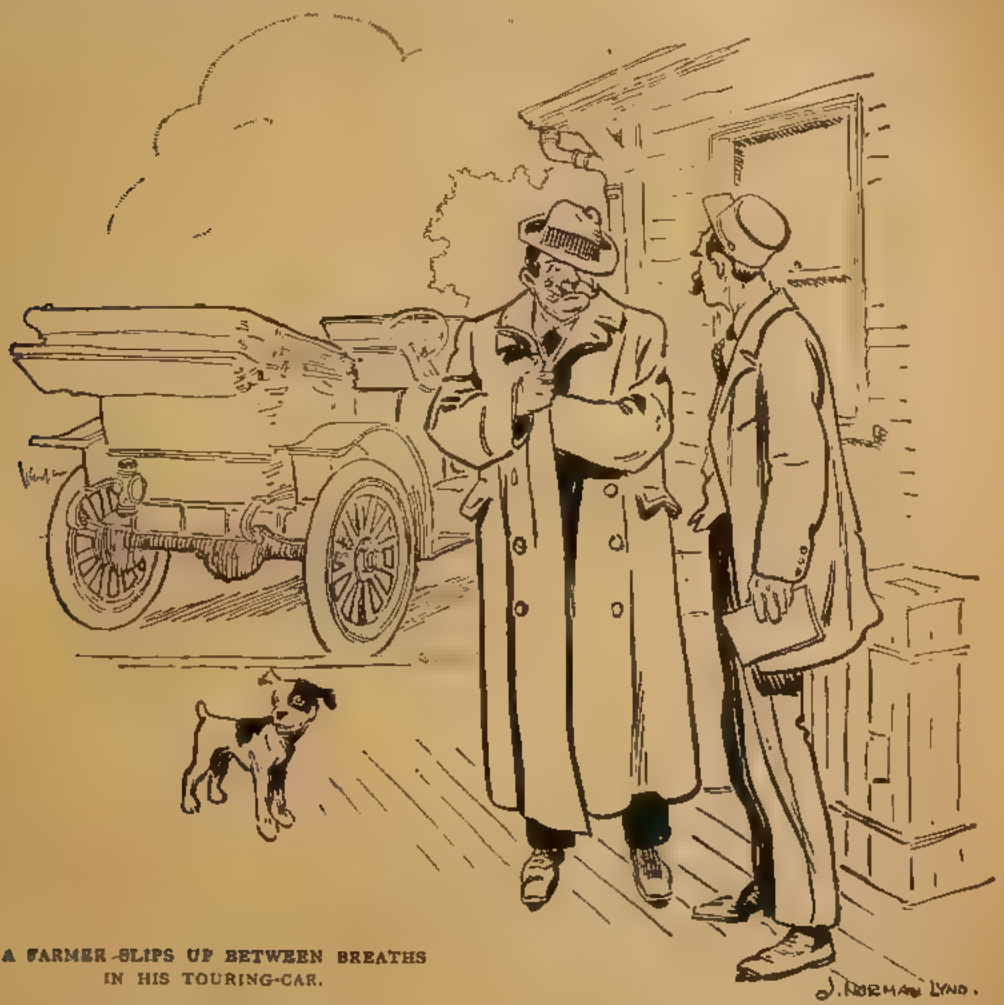
The old operator had his doubts and said he would have to see and hear one of them for himself before he would believe such a story.

"That would be lots more convenient than telegraphing," observed the teacher. "I allow it will take the place of telegraphing some day."

"So would perpetual motion be lots more convenient than the old turbine down at the grist mill," replied the old operator in subtle defense of the old order of which he was a trained part, and showing suspicion and distrust of any departure therefrom.

One day a new man breezed in from Chicago.

"I'll tell you what I saw," said he. "I



A FARMER SLIPS UP BETWEEN BREATHS IN HIS TOURING-CAR.

saw a fellow in 'Ch' office take a message right off the wire on a typewriter machine and never break. And there it was just like print. That's telegraphing for you, ain't it?"

"Huh," answered the old operator. "There was some trick to that. I'll never believe they'll get to printing them right off the wire on machinery until I see 'em do it."

The postmaster came over.

"What's this I see in the papers," he asked, "about the railroads dividing up these United States into Eastern time, Central time, Rocky Mountain time, and Pacific time? Ain't President Hayes got enything to say how this country ought to be divided up?"

As a commissioned servant of the U. S. A., he was riled.

The old operator could not explain it.

"We've always run by Columbus time," he explained, "but I understand it's going to be St. Louis time, and the time's going to be divided into four parts, with an hour between 'em. Every road has its own time. I understand they are going to be made all the same."

"Air the railroads going to have the sun rise and set as usual, or air they goin' to change that?" asked the postmaster with sarcasm.

"I reckon they'll do about as they durn please with their own clocks, won't they?" replied the old operator.

That was long, long ago. The old operator has gone to his reward. Tears and flowers.

The depot where he battled with the public has crumbled to dust, and a new station, porte cochered and minareted, stands in its place.

Away down the track is a tower where the three operators on eight-hour shifts handle the movement of trains with never a jarring note from the public.

The village has its white houses, its graceful trees, its bricked streets, and its happy children.

A young man with rah! rah! clothes, personally conducted by a young, dear thing with a two-bushel and one-peck hat, saunters blithesomely and care-free toward the tower.

It is the second-trick operator of the newer order

A farmer slips up between breaths in his touring-car for the binder parts. The agent has notified him by phone that they had just arrived. He don't look much like the farmer of the olden days, either.

It is all so different—so much better. Pity the old operator could not have lapped over into the next generation.

SUPERHEATING NOT A NEW IDEA.

THE superheater is of necessity coming to the front with rapid strides, chiefly owing to the urgent needs and calls from every quarter for fuel economy. Superheating is not a new-fangled idea, as some persons suppose, the opinion of some being that the superheater on a locomotive is something that has been imagined in the mind of some enthusiast on fuel economy, and is consequently additional apparatus with which to fill up the already crowded front-end of a locomotive, and which will result in nothing. Superheating is not by any means a new idea, though at present it is being put to uses that were unheard of years ago.

Ever since the laws of expansion and contraction have become recognized, superheating, both of solids and gases, has been practised with a definite purpose in view, viz., to gain a greater efficiency out of the substance being heated than could have been obtained by any other means.

There are two or three known laws that govern the working of the superheater on a steam-engine. From one of these, called Mariotte's law, it is found that *the density of a gas increases as the pressure increases, and decreases as the volume increases.* From another, known as Gay-Lussac's law, we learn that *if the pressure remains constant every increase of temperature of one degree F. produces in a given quantity of gas an expansion of* 1.492 *of its volume at* 32 *degrees F.*

Now the principle of this should be very easy for a fireman to understand, in that every degree of superheat produces an expansion of the steam, which results either in greater pressure, if the volume is constant, or in greater volume if the pressure remains constant. The steam generated in a locomotive-boiler is called saturated steam, and in fact steam in any boiler is in the same condition, saturated; that is to say, it has a certain amount of moisture with the steam. This is due to the bubbles of steam coming up through the water being surrounded by a thin film of water, and this thin film naturally causes an amount of water to become mixed with the steam; thus it is called saturated steam.—*Locomotive Firemen and Enginemen's Magazine*

IN THE HORNET'S NEST.

BY DAN DUANE.

The Longest and Most Turbulent River Will Always Find Its Way to the Sea.

CHAPTER XXII.

When Greek Meets Greek.

SETH WATERS cantered down the pike astride of the brown horse, comfortably seated in the saddle, urging him on with the long reins of the bridle. He smiled complacently as the horse broke into an easy lope. He smiled, because it was pretty good work to make a getaway, not only with a horse, but with a saddle and bridle as well.

In the darkness he did not know where he was going. It lacked a few hours of dawn, but the horse seemed to know the road, and Seth let him have his way.

He seemed to be a good roadster, and he kept up the same easy, steady lope. Once or twice Seth was inclined to let him out, but he thought it best not to do any hard riding just then.

When the day dawned he might possibly run the risk of sheriffs—then he could let the brown horse show what was in him in the way of speed.

As he cantered along he smiled in satisfaction at the marvelous manner in which he had made his escape. In the first place, fooling the farmer was a ten-strike. Killing the dog so deftly before it had a chance to bark was, surely, the work of a master. Annexing the overalls and the bread, to say nothing of a good horse with a saddle and bridle, placed him beyond all peradventure in the front rank of the nimble-fingered gentry who steal for a pastime.

Seth was more than proud of himself. Having met with such unusual success since his hastened departure from Rosalia, he now thought that it would be an easy matter to get just what he wanted, and at any time.

Food and transportation were to be his for the asking. Should the man whom he might ask deny him—then that man would have to pay the penalty.

Mile after mile of roadway the brown horse covered before the first stars began to fade and the gray of a new day appear on the horizon. When the dawn finally burst so that Seth could see the country around him, the horse had slowed down to a walk.

He was approaching a cañon. He could tell from the high hills that surrounded him that its entrance was not far off. As the day grew brighter he took in his new surroundings with a whimsical leer on his face.

Truly luck was playing right into his hands.

The horse walked on and on. Seth did not urge him. He would ride into the cañon, find a secluded spot, and camp out for a day or two. He had the two loaves of sour bread with him; and then a cañon always indicated water. Things were coming his way.

In his heart, Seth loved the wilderness, and he loved to be alone. Eating, with him, was only a means to an end. If there was a slim chance of getting food—only the merest chance—Seth was satisfied. He liked to be alone.

Alone with a horse or a dog, or the birds that caroled in the gay foliage of the California wonderland—it was all the same to him. On the gray days when it rained he was satisfied to curl himself up under a sheltering rock—if that were the only thing handy.

If it were a matter of talking, he would talk aloud to himself, or to his horse or dog. He only asked and prayed to be alone—alone in the mighty world, unmolested, free—at will to mount his horse or call his dog, and go whither his fancy directed.

So long as this condition lasted, Seth knew that he was safe, and so we gather that his desire for the lonesome life was more to satisfy his criminal instincts than to commune with nature. When he picked out a little white spot just beside a faintly running stream about a mile or so inside the cañon, he was fully satisfied that he was never so much alone in all his life.

The spot that he selected was surrounded by a growth of giant sequoia, and the chaparral at its base was thick and homelike. It looked as if no other man had ever looked on it before. The very air he was breathing seemed disturbed at the presence of a human being.

The road that he followed into the new paradise showed the traces of traffic. The wide-tired wheels of the big, covered schooners, and the long, narrow hoof-prints of the patient mules, told him that it had been traversed—but it was evident that he was the first man who had come to stay.

He had some trouble in reaching the white spot. The underbrush was thick and almost impenetrable. The horse got one or two pretty bad scratches. One of them bled profusely. This worried Seth more than anything else just at that moment.

He tethered the animal under a tree, where it would be hidden from the passing multitude should any part of it happen along the roadway. Removing the saddle and bridle, he filled his hat from the stream, washed the horse's wounds carefully, and, tearing the stolen overalls in strips, he bound the wound that bled.

He bound it tightly, first applying a poultice of mud from the bed of the stream, and was soon gratified when the bleeding had perceptibly ceased. He watched it for some time until it stopped altogether. Then, satisfied that his surgical work was well done and had taken effect, he stretched himself on the soft grass and went to sleep.

When Seth awoke he sat up rather hurriedly, and, naturally, looked at his horse. The animal was just where he had tethered it but, strangely, it was looking straight ahead, its ears bent forward.

"Another one of those durned panthers," meditated Seth.

The horse, realizing that Seth was awake, neighed in a subdued sort of a way, but all the time it kept looking steadily ahead. Seth arose and stood by the animal's head.

He peered into the bushes ahead—and saw a man.

The stranger was a small, wiry man, dressed in a somewhat dilapidated suit of clothes. His blue shirt was open at the neck, and his sombrero was pulled down over his eyes. Seth would have made two of him, and could have kicked him into the middle of next week.

Seth would have gladly imparted this information to the stranger and then carried it into effect—but the stranger was armed.

His foot rested on a fallen stump; his elbow rested on his knee; his finger rested on the trigger of a shining rifle, and his eye rested on Seth.

"Up!" said the stranger in a voice that was unusually high-keyed.

Seth raised his hands over his head rather cumbersomely, saying as he did:

"I ain't armed."

"Turn around," said the stranger.

Seth turned, his hands still above his head.

The stranger, convinced that Seth had nothing in his hip-pockets, ordered him to step forward.

Seth did as he was ordered. He walked to within two feet of the other and stopped.

The stranger prodded Seth's wearing apparel with the barrel-end of his rifle, all the time keeping his finger on the trigger, while Seth kept his hands in the air. Then he knocked off Seth's hat, pried around his much worn shoes, and went through a few other gyrations until he was absolutely certain that Seth was telling the truth.

"All right; put 'em down," said the stranger.

Seth let his long arms drop to his side and picked up his hat. The stranger stepped over the log, and slung his rifle over his shoulder as he did so.

"I don't mind meeting you, stranger," said Seth; "but if you will tell how on earth you found me here, I will deeply appreciate it."

"Heard ye snorin'," replied the little man.

"Snoring!" remarked Seth.

"Yes"—and just the faintest glimmer of a smile crept over the little fellow's face—"you was a tearin' it off at some speed."

"You don't say."

Seth was somewhat surprised at his own carelessness. He should have waited until night before going to sleep.

"Had a long ride?" asked the stranger.

"Fairly long."

"Where from?"

Seth paused before he answered:

"Over there."

He gave a nod with his head, and the stranger could have taken any direction that pleased his fancy — north, east, south, or west.

"That road only leads in one direction," said the armed man.

"I know that," replied Seth.

The crafty Seth didn't know. He didn't know just where on top of the great, wide world he really was; but, whatever the mission or motive of the armed man, Seth was not going to divulge even an inkling of his ignorance.

"It leads to Santa Maria," went on the stranger.

Santa Maria! A town about thirty miles to the north of Rosalia.

Seth took it all in without blinking an eye.

Santa Maria! The road led to Santa Maria! Then he had been traveling in a sort of a circle, and was not so far away from Rosalia as he had expected.

This information meant a great deal to him. It meant, perhaps, his life—but so calm remained the muscles of his face that the stranger discerned nothing of the whirling thoughts in his mind.

"Fine horse you've got."

The stranger approached the animal and stroked his back. The horse was no longer nervous. He realized that the stranger was a friend.

"Where did you get him?"

Seth did not answer quite as readily as a highwayman of his ability should. He hesitated just long enough to give his visitor an idea that all was not just what it should be, and then replied:

"I've always had him."

The last word had hardly been uttered when the stranger said:

"No, you ain't; you stole him!"

Seth had to accept the insult, bitter and truthful as it was; he was unarmed.

"Can't get in an argument with me," said Seth.

"Ain't no argyment needed long as ye tell the truth," said the little man.

Some philosophy in that, thought Seth. Comes pretty near hitting the bull's-eye.

"He's a pretty good animal," the stranger continued, walking around the horse and eying him critically. "I should say that he was somethin' on the road. Bet he'll make some distance 'tween sunrise and sunset."

Then it dawned on Seth that the stranger wanted his horse.

CHAPTER XXIII.

A Deal in the Wilderness.

"I AIN'T got the slightest idea in my nut," the stranger continued, "that this horse is yourn. I'm pretty certain thet you stole him."

"Suppose I did—if it will please you any," said Seth.

"It will give me less feelin's 'bout takin' him."

"That so?" Seth looked at his man quizzically.

"Thet's so," said the stranger, raising his voice, and smiling as if to indicate that he held four aces and all the trumps in the little game that he was playing.

He was still walking around the animal, which was now grazing quietly, looking at it with keen eyes.

"Don't seem to have no brand on him," said the stranger.

"Never noticed any," Seth replied.

"Guess you're pretty good at the game, pard. Never knew a good horse-thief yet as would take one with a brand, if he could help it."

That almost pierced Seth's diplomacy. It was all he could do to keep from landing on his strange companion, regardless of the consequences.

"He was that way when I bought him," Seth said, as soon as he could smother the anger that was dwarfing his better self.

"Ha! ha! ha!" The stranger laughed. "Say, bo," he went on, "don't come any of that fool talk with me. You stole that horse, and you know it. I ain't been around these parts not to know a stolen plug when I sees one. I'll bet I could get on his back now, and he would take me straight to the barn where you found him."

"Well, supposing I did," said Seth with determination. The stranger being so intent on the point, Seth thought it best to take another tack.

"It's all the same to me, even if you do confess."

"What do you mean by that?"

"I mean to take him!"

"You mean to what?"

Seth stepped closer to the stranger as he uttered those words.

"Just what I said," the little man remarked with a coolness that made Seth Waters wince. "I mean to take him. I need that horse in my business. Come, now! Look lively! I ain't got no time to waste! Put that there saddle an' bridle on him, quick! I want to get out of here."

Seth hesitated.

The stranger made a motion with his rifle. He indicated clearly that business was his bent.

Seth picked up the saddle and slung it on the horse's back. He worked slowly; but he was thinking all the time.

He needed time to think. He wasn't going to let this man get away with the game.

Just as he was about to put the bridle in the animal's mouth, he turned to the stranger and said:

"Look here, pard, you ain't going to leave me here—"

"Get that bridle on—quick!" said the other as he slung his rifle to his armpit.

It was evident that sentiment would have no effect on this man. Seth adjusted the bridle, buckled the throat latch, and threw the reins over the saddle-horn. Then he turned to await further orders.

"Stand ten feet in front of him!" the bandit commanded.

Seth measured the distance and came to a halt.

The other man walked to the horse, untied the rope by which Seth Waters had tethered him, and, with his rifle firmly grasped in one hand, started to mount.

For some reason or other, the horse was a bit skittish. He began to describe a circle, as a horse will when a strange mount tries to get astride him.

The stranger was unprepared for this. The horse circled and reared. The rider tried hard to get his seat.

Seth Waters saw his chance.

Quick as a flash he dashed. He had but one object in mind just then—the rifle. That weapon was the law and order of the scene.

Ere the stranger was aware, Seth Waters had the barrel of the gun gripped in his strong hands.

His grip was the grip of the man who is desperate and is playing only to win.

As he tugged at the rifle, he gave the horse several lusty kicks in the belly with his right foot. This made the animal lunge all the more.

The stranger had one foot in the stirrup. Plainly, he was on the defensive. He hung onto his gun with a grip of death, but Seth was more than a match.

In another moment he had wrested the rifle from the smaller man's hand. He stepped back a few feet, master of the situation.

The stranger was on the horse's back! Digging his heels into its flanks, he made a dash for the opening in the chaparral to the open road.

Seth leveled the gun and fired.

The man fell forward, the blood gushing from his mouth. He fell head first into the thick underbrush. If he spoke a word, Seth did not hear it.

The horse stopped short—frightened and trembling. Seth rushed up to the animal and grabbed the reins.

He administered a kick to the body that lay motionless at his feet, and uttered several imprecations which, to him, were quite necessary as a parting shot.

The stranger did not hear. He had gone to his reward.

Seth wanted to make a complete job of it, so he turned the body over and rifled the clothing. In one of the pockets he found ten loaded cartridges; in another, a plug of tobacco; in another, a jack-knife that had been recently sharpened, and—to his great amazement—four dollars and fifty cents in United States coin.

"Everything is coming my way," he said as he wrapped the money in his handkerchief, dropped the cartridges in his pocket, took a chew of the weed, and mounted the horse.

CHAPTER XXIV.

"Heads" She Is.

HE started up the cañon, leaving the body to the tender mercies of the buzzards and the wolves. Thinking it best to put as much distance as possible between him and the scene of his most recent depredations, he urged the horse to a fast lope.

He rode on at a pretty rapid pace, until it seemed that he had put three miles be-

tween him and the scene of the murder. Then he let the horse come down to a walk, and, between a walk and a canter, he traveled on and on.

As the afternoon was waning, he found himself not far from a dilapidated farmhouse. It was a low shanty built in an opening in the cañon.

The small yard surrounding it contained a cow and a horse, also a large dog of the Newfoundland variety, which barked lustily as he approached.

There seemed to be chickens and pigs everywhere—the one cackled noisily and the others grunted defiance as he rode up to the front gate.

There was no other form of life visible.

Seth felt certain that the combined barnyard chorus would bring forth any human being within hearing distance. He was not a little surprised, therefore, when no human form came forth to greet him.

Placing his hands to his lips, he gave a loud cattle "halloo," but this only frightened the barnyard into a scamper.

Dismounting, he walked up to the only door of the shanty and knocked. A faint rustling inside told him that there was some one living there.

Without further ado—the rifle dangling from his left hand—Seth opened the door and walked in. In the one large room of the mansion a weak, emaciated woman lay on a rough couch.

She tried to smile. Seth approached graciously, removing his hat, and giving other assurances that he was to the manor born.

"What do you want, sir?" The woman spoke, but her voice was hardly discernible. Then she lapsed into silence, and the twitching on her face showed that she was suffering great pain.

"I am traveling toward the south, ma'am," replied Seth Waters in his very best style. "I am hungry, and came here to see if I could purchase food."

"I am sick, and cannot get up," said the woman. "My husband has gone to Santa Maria for a doctor. I would like to help you, but it is impossible."

"Your husband gone to Santa Maria for a doctor—and you here alone!"

Seth looked as if human sympathy were his with a mortgage.

"There was no one to stay with me. I am too weak to get up."

This awful picture of frontier life, of the fortitude and patience of the women who braved its hardships that their husbands might have a chance to seek fortune in an untried and untrodden land, touched the heart of the desperado.

"How far is it to Santa Maria?" he asked.

"About twelve miles to the southeast," she directed.

"That way," said Seth, pointing in the direction in which he had been traveling.

The woman nodded.

Seth Waters thanked her and started to go. She spoke to him again—this time a little louder and with some exertion.

"If you are very hungry," she said, "and can wait; my husband will be here shortly. He will get you something."

"No, thank you," replied Seth.

Brutal as he was, he would not let a woman think that he would hang around for food. That wasn't Seth Waters's idea of the manner in which things should be done.

Had she been strong and well and denied him food, had she asked him to depart like a common tramp, he would have held her up with his rifle and made her cook the very best on the place for him. But, as I have said, food was not a matter of great importance with this man.

However, he left the place with commendable courtesy and closed the door. Then he slunk around to the kitchen entrance and stole a piece of bacon that was hanging near the door.

"It may come in handy," said Seth, as he jumped on his horse and rode in the direction of Santa Maria.

He had partly decided to spend a few days in that old Spanish settlement. As he sauntered along, he wondered if he really looked sufficiently respectable to make the visit.

It had been so long since he had been where civilization assembled that he began to wonder if he were quite safe in taking a risk.

However, he would take time to think it over. Swerving the horse to one side, he rode up the somewhat steep side of a small mountain.

He spied a huge rock and a clump of trees. These afforded shelter for himself and his horse, and he was easily pleased at his selection when he dismounted and looked around him.

To be sure, it wasn't much of a place for the horse, for the grass was pretty short,

and there was no water: but the animal had had his fill only a few hours before, and Seth did not worry.

He gathered some sticks, and soon had a fire. Taking his knife from his pocket, he sliced some of the bacon. In the absence of a pan, he held the bacon over the fire at the end of a long stick. He cooked it to a turn, laid the strips on slices of the sour bread, and enjoyed a really good meal.

As he devoured his food, he turned over in his mind all the various points of the situation.

Santa Maria was one of those towns where strangers arrived at all times of the day or night; for, at the time of this story, many and peculiar were the wanderers over the face of the far western country.

Men and their families would travel by horse from the farthermost parts of southern Mexico far up into the newly found El Doradoes of wealth which are now the thriving States of Colorado, Nevada, and California.

They would return to the south with their well-filled pouches and mingle with the new faces from the East. In these crowds were men of all kinds and character. One might rub elbows with an honest prospector on one side, and with the most daredevil desperado on the other.

It was a common thing for a strange horseman to ride up in front of a saloon, dismount, and walk in and be at home in a few moments. These strangers were usually well-heeled with pistols and money. No one asked where they got the latter lest he get a taste of the former.

So, taking all these things into consideration, Seth Waters decided that it might not be bad for his health if he passed a few days mingling with the bright spirits of the old town.

It might be a trifle distasteful to his mode of life to arrive there with just four dollars and a few cents. That wouldn't go very far. It wouldn't buy much liquor; and if he were invited to sit in a poker game, it might vanish with the first pot.

Really, he should have more money. There was the sick woman whom he had just left. In some corner of her shanty there might be a hidden stocking containing some hard-earned savings.

He needed them more than she. But — no. He suddenly thought otherwise. He would not rob a woman. At least, he would not run the risk of so doing.

Attacking a woman was one thing not tolerated in the variegated system of highway robbery of that country. There was some sort of admiration frequently expressed for a man who could make a clever horse "deal"—as the game of horse-stealing was popularly called—and the courageous road-agent had his host of worshipers. But the man who would rob a woman —he was hunted to his hole and hung!

No, it would not do to rob a woman.

Seth slept calmly that night beside the sheltering rock. In the early forenoon of the following day he took a reef in the horse's cinch, threw his leg over the saddle, and started down the hill.

When he reached the road, he paused for a moment and took a coin from his pocket.

"Heads for Santa Maria," he said as he flipped it in the air.

He caught it on his palm. It came "heads."

CHAPTER XXV.

"Dead or Alive!"

SANTA MARIA boasted of some dozen or more saloons in a population of only several thousand. Seth stopped at the first one he saw. Outside, several horses were hitched to a watering trough, and he found a place for his thirsty mount beside one of them.

He walked inside. A motley crowd was standing around the fly-bedecked bar, and another crowd was watching a poker game in a side room. Seth stepped up to the bar. Instinctively the bartender passed over a glass and a bottle. Seth threw down a coin, filled his glass, and turned, resting his elbow on the bar to drink.

As he did so, a small, official-looking notice in a battered frame arrested his attention. Perhaps he might not have noticed it had not the top line particularly caught his eye. It read:

$1,000 REWARD!

He walked across the room to learn whose head was worth so much money.

The glass almost dropped from his fingers and the marrow almost froze in his veins when he found that it was his own.

It read, "for the capture of Seth Waters dead or alive."

"Dead or alive! Dead or alive!"

Seth repeated the words again and again.

Then he read on: "For the murder of Philip Garrick, *ranchero*, of Rosalia."

A further paragraph announced that the reward would be jointly paid by the county authorities and Carmita Arcana.

Seth read it once more so as to get it well posted in his memory, and returned to the bar.

"Did you know him?" asked the bartender, stopping in his work of polishing glasses to become sociable.

"No," said Seth. "Give me another."

"First time I ever see a reward of that size posted up in this place for a man," the bartender went on. "Guess they must want him pretty badly."

"Why don't they run him down?" asked Seth with his most gifted touch of carelessness.

"They'd have a husky gettin' that feller," said the bartender with a smile. "He's the slickest thing that's been in these parts in years. He'd shoot on sight or rob in a minute. I guess nobody wants to tackle him unless he can do so in the dark and then get the drop on him."

Seth did not dislike this rather exaggerated opinion of his ability.

He threw the second drink down his throat.

"Have one on me," said the man behind the bar, passing the bottle.

"No, thanks," Seth replied. "I'm just passing through town on my way south—and that stuff only agrees with me when I take just a little of it."

He put the change in his pocket and went once more to the notice. Again he read it very carefully, especially the rather minute description of himself.

He had a twinge of fear as he wondered if he were in any immediate danger. He wished that he could look into a mirror without being observed, to see if the description of his features tallied with his present appearance. He hoped that his recent life in the wilderness had sufficiently changed him to render him unrecognizable.

He turned again. The man behind the bar was looking at him.

"Seem interested in that," he said.

"I was just thinking what I would do if I had that thousand," Seth replied. "It's a lot of money."

"Bet your life," said the bartender.

Seth stepped outside and mounted his pony. He rode on into the little town, whose houses were scattered irregularly in order to give their owners plenty of space for flowers and sunshine, and whose business streets were quaint with the idleness of the period.

"Dead or alive," he repeated. "Dead or alive."

He rode on and he saw another saloon. He did not dismount, for he thought it best to go through Santa Maria at a jog and make for the hilly wilderness beyond the city's borders. Once there, he would be free with his thoughts and his horse, and would plan a journey for the future.

There was the customary amount of lethargy in the old town. No one even turned a head to notice him—him, Seth Waters, on whose head was a reward of a thousand dollars if he were captured dead or alive!

It was a wonderful feeling! It thrilled him! The very thought of being able to ride unnoticed through the streets of the town when he was wanted—dead or alive!

The situation so thrilled him that he laughed almost outright. Then that deadly notion that has been the cause of so many a man's downfall—just one more drink—came to him.

Just one more drink to celebrate his victory! Just one more to the old world and Rosalia and Carmita, whom he had so beautifully fooled, and he would take his way to the mountains, and the price for his body would become a relic of the past!

The next saloon was in the center of the town's activity. Like the first one that he visited, there were some horses tied to a trough outside. This place seemed to be a bit gayer than the first. There were a dozen or so men seated on the porch. From the interior came the dulcet tones of mandolin and guitar, played as only the people of the southland can play.

The men eyed Seth Waters rather keenly as he entered the place—and he seemed to be more than usually conscious that he was being observed. Then he tried to make himself think that his imagination was getting the best of him.

As in the former place, he ordered a drink. As he lifted it to his lips, he turned and scanned the walls. There were more people in this place than in the other. Some of them were standing against the walls and it was difficult to see, but Seth's keen eyes peered hither and yon and soon they rested on the notice posted in a rather conspicuous place at the end of the bar.

He swallowed the whisky and sauntered over to the notice. He had left his rifle outside, strapped to his saddle, as he thought it best not to attract too much attention by bringing it into the place.

Perhaps, if he had not done so, the following incident would not have happened without the side issue of a struggle.

Seth had just turned to go. About the middle of the room, two men, who had been watching him closely, stepped in front of him

One of them leveled a revolver.

"Hold up your hands, Seth Waters!" commanded the armed man.

Seth was so terribly taken by surprise that his breath came in short, quick gasps.

"I'll do as you bid, because I'm unarmed; but I'm not Seth Waters."

His hands went over his head.

"That don't go with me," said the man with the gun. "I've seen you a hundred times over in Rosalia, Seth. I know you—and my friend here knows you."

The speaker was Dick Clancy, a young rancher who owned a great tract of grazing lands between Rosalia and Santa Maria. The man with him was Tom Ferris, his head *vaquero*. He had also been a *vaquero* for Philip Garrick.

In an instant the saloon was in a commotion. As fire spreads over dry grass, the news that Seth Waters had been caught spread throughout Santa Maria

"Search him for his gun," said Clancy to Ferris.

"I'm unarmed," protested Waters. "My gun is strapped to my horse. I tell you, this is a mistake!" he went on loudly. "Get through with this work and take me to court. I'll quickly prove that I'm not the man you say I am."

Ferris made a hurried search and was convinced that Waters was unarmed.

"All right," said Dick Clancy. "Lower your arms."

An immense crowd had gathered outside. Seth Waters was marched to the jail. Dick Clancy was on one side holding his arm. Tom Ferris was on the other.

The residents of the town came from all directions. They blocked the street to get a glimpse of the now famous bandit and murderer. When the entrance to the jail was reached, it was with some difficulty that he was gotten inside.

Once in the custody of the sheriff, he was lodged in a cell. He was asked if he did not care to have a barber trim his beard and long hair. This Seth refused. If there was any hope for freedom now, it would be due to his unnatural growth of beard, and there was no law in the land that could make him shave against his wishes.

However, ere the day ended it was pretty generally agreed that the man in jail in the little town of Santa Maria was the real Seth Waters, and that Dick Clancy and Tom Ferris were the richer by a thousand dollars. And the most excited man of all was the bartender in the first saloon where Seth stopped. He had come breathless to the jail and had told his story to the sheriff.

That worthy took him to Seth's cell and let him have a look at the prisoner.

The young man, as he stood in front of Seth's cell, swore at him.

"What's the matter, sonny?" asked Seth.

"Why didn't you tell me who you were when you was in my place? I might have had that thousand dollars instead of those two fellows!"

Seth Waters simply grinned.

CHAPTER XXVI.

A Woman's Way.

WORD was quickly sent to Rosalia. Through that city and on beyond, from mouth to mouth, the news was spread. Seated in the little room of her old uncle's home, Carmita first heard it. She was sewing the thickest of crêpe to her black dress, for she had sworn never to wear color again. Philip had been to her the world. Now that he was gone, she would always wear mourning.

She knew that the day would come when Seth Waters would be found. Ever since the death of Philip, as day slipped into day and no news of the man came to Rosalia, her friends told her that he would never be heard from again. But Carmita was not of that belief. She persisted that he would some day be brought to justice.

"You are foolish," they said. "He is far beyond danger of apprehension."

"I have willed it," she replied.

She was sitting in her old uncle's home when a young *vaquero* dashed up to the front door.

The horse was flecked and panting. The rider was almost breathless. He was one of the fine young Western *vaqueros* who

had herded cattle for years on the ranch of Philip Garrick.

Carmita saw him dismount. She saw his trembling pony, and she read his face She knew—knew all. He did not have to tell her as she opened the door to let him enter.

"They've got him!" she said excitedly, as the first smile that her face had known in days illuminated it. "They've got him! I know! Where?"

"He's in jail -in Santa—Santa Maria!" the *vaquero* gasped.

"Are you game to go there with me?" said Carmita.

"If you wish it, madam," he replied. "But my horse is all in. I must have another."

"There are horses in my stable," she answered. "I have kept them ready day and night—day and night—waiting for this! I knew this news would come."

"Will you drive or ride?" the *vaquero* asked.

"We can make better time on horseback," Carmita replied. "I want to get there before sundown. Go to the barn and help the man saddle the two horses in the first stalls. I will be ready in a moment!"

She dashed up-stairs and put on her riding habit and a black sombrero. She was ready before the horses. When the *vaquero* appeared, riding one and leading the other, he dismounted with all the gallantry of the gentlemen of his time to assist her to mount.

Before he had a chance to lower his hand that she might place her foot on it, Carmita was in her saddle.

"Come on!" she shouted as she dashed through the gate.

The *vaquero* followed, but he had some trouble in catching up. *Mazeppa*, bound to the back of a wild steed, never rode so madly as did this woman filled with the hope of wreaking the vengeance that she had harbored in her soul ever since her heart's ideal was killed.

Her horse's hoofs kicked up a cloud of dust as he galloped on—and for some miles this was the only guide that her companion had to keep him in her path.

Carmita's teeth were clenched as he dashed madly on. She urged her steed at every faltering sign in his gait.

Now and then she felt the small pistol which was strapped to her waist She wanted to be sure that it was there She might have to use it. Why had she been practising with it so much of late?

Just outside the limits of Santa Maria she reined up and dismounted.

Taking a handful of grass from the roadside, she wiped the foam that had flecked her horse's body. Her companion cantered up. She bade him do likewise. He obeyed without parley.

In a few moments the animals had regained some of their wind and looked as if they had not been driven beyond human endurance.

Carmita did not want to attract too much attention as she entered the city. The hour was somewhat late, and a woman on a hard-ridden horse might be more than ordinarily noticed. So they entered the town more slowly.

"Do you know where the jail is located?" she asked.

Her companion replied that he could take her straight to its door.

In ten minutes they were there. Carmita was the first to dismount. She handed her reins to her companion, saying:

"Wait here."

In another moment she knocked on the door of the jail. The sheriff opened it and she entered.

She told him who she was and of her interest in the prisoner. She told him that she had come all that long distance to identify him.

At her urgent request, the sheriff took her to Seth Waters's cell. He was stretched on the hard couch, his body heaving with the regularity of sleep.

The sheriff called to him, but he did not respond. Then that officer entered the cell and awoke him. Seth sat up and looked at his jailer.

"A lady to see you," said the sheriff.

Seth Waters only grunted. He had little or no use for women. His first thought was that some religious fanatic had come to help him save his soul. He did not want to see a woman, and he plainly said so.

"This lady has come some way to see you," the sheriff continued. "I think she knows you. Get up, anyhow."

Seth stood up and faced Carmita.

She looked at him with the keenness of a lynx. She eyed him from head to foot through the prison bars.

Then her eyes filled with tears. There he was. She knew him. She had seen him around Rosalia and the store kept by old

Eugene too many times not to know him, and not to be able to recognize him through any disguise whether real or false.

There stood the man who had murdered the only man in the world she had ever loved! There stood the man who had brought more unhappiness into her life than life itself. There stood the man she hated, that she loathed as one would loathe a viper. There stood Seth Waters!

The tears came to her eyes. For a moment she lost control of herself and caught the bars for support. Then she regained her strength and her courage.

Seth Waters stood before her, the picture of sheepish docility. Surely this was the most trying situation in which he had ever been placed.

"Seth Waters," said Carmita, "I know you. I know you, and you can't get away from that. I would know you among a thousand men. Tell me, are you sorry? Are you sorry for the misery that you brought to me?"

"Am I sorry—for what?" he replied. "You are mistaken, madam."

The sheriff was called into his private office. The two were left alone.

"You killed Philip Garrick," she said. "You shot him down in cold blood."

"I never shot him—or any other man," protested Waters.

"You lie! You lie! You dog—you lie!"

Carmita turned white with rage. Stepping back a few feet, she drew her revolver. She had kept it carefully concealed until now.

Leveling it at the man in the cell, she said:

"Seth Waters, prepare to meet your God!"

"Don't shoot—don't!" he cried.

Carmita continued:

"Such men as you do not deserve a trial. You ought to be shot like dogs!"

He saw that she was desperate. He reached through the bars. His long arms were stretched to their fullest, his long fingers clutched in the madness of a caged beast. He ran into a corner of the cell and crouched there.

"Don't shoot! Don't, don't shoot! Help! Help!" he yelled.

Carmita stepped to the bars and took deliberate aim. Seth Waters cried once more—this time for pardon. For the first time in his crime-filled life he was at the mercy of another, and—a woman at that!

Carmita pulled the trigger. Seth Waters rose to his feet with startling suddenness and placed his hands on his heart.

His cries were silenced. He fell to the stone floor—dead.

There was commotion in the other cells, but Carmita was undisturbed. The sheriff and several of the trusties rushed to her with blanched faces.

Before they had time to speak she told them what she had done.

Handing her revolver to the sheriff, she said calmly, but with deliberation:

"I have avenged the death of Philip Garrick. I have killed the man who murdered him. I swore that I would do it. You may do with me as you please."

"Who are you, madam?" asked the sheriff, taking the weapon and leading her to his office.

"I am Carmita Arcana. Philip Garrick was the man I loved."

That night the *vaquero* rode back to Rosalia alone. The next day, by universal request, Carmita was given her liberty. The old Governor of the State knew her and knew that she had told the truth. She returned to old Caillo's home.

Years afterward I saw her there. She was still the same beautiful Carmita. The white hairs had come to her, but her face had all of its old glory and wonder.

She had never forgotten the vow that she had made to her lover, her Maker, and herself—that she would marry no man but Philip Garrick.

Through all her life she devoted herself to the old Catholic mission at Rosalia, patiently and calmly waiting for the final call when she would join Philip across the great shadow.

In the little acre of God that nestles in the shade of Mount Whitney, their graves are side by side.

(The end.)

Big pay checks bring big cares. Be sure you can make good with the one before you want to grab the other.—Creaks from the Pay-Car Door.

The Miracle of the Mails.

BY THADDEUS S. DAYTON.

HANDLING the United States mail is a sacred duty, and the government on whom this duty is imposed fully recognizes the importance of its sacredness. If you post a letter with a two-cent stamp in the right hand corner of the envelope, that letter is the property of the United States until it is delivered at its destination, and the government has only one object in view—to deliver that letter with the greatest possible speed wherever it is destined to go within the limits of the two-cent rate.

Perhaps no other country in the world handles so much mail matter as the United States. If it were not for the splendidly equipped R. M. S., the alert and keen-eyed clerks, and the fast mail trains—what would the mail service amount to? The railroads truly are the backbone of this gigantic scheme of perpetual motion, handling over twenty billion pieces of mail a year.

Uncle Sam's Gigantic Task as a Letter-Carrier and What He Does, with the Aid of the Railroads, To Make His Service a Success.

IT is the luncheon-hour at Slug & Case's big printing-house in Pearl Street, New York. The machines have stopped. A hundred girls are gathered in groups—eating, chatting, and giggling. Over on a window-ledge, her forehead puckered, one of them is busily writing.

She has the stub of a pencil and some coarse white paper taken from a pile by one of the presses. Her pencil makes hard work of it, but the page fills steadily.

"It's to Jack, up in Alaska. Barrow is the name of the place, wherever that is," she says. "I must mail it to-night. It is something I must tell him at once."

Barrow is one of the most northerly post-offices in the world. No telegraph-wires have been stretched there.

With infinite care and effort she finishes the letter just as the whistle shrills its summons back to work. Hastily she addresses it, and shoves it in the pocket of her work apron.

Down in Wall Street, at the same hour, there is a meeting of a board of directors, composed of dignified, powerful men, whose wealth foots up millions. It is necessary to get word immediately to a member of their company, also in Barrow. The letter must reach him as swiftly as possible. The mail is the only resource. The board calls up the post-office.

"If you get the letter to us by seven to-night, it will catch the next boat out from Seattle. There is mail service there but three times a year," replies the post-office.

The printing-house girl posts the letter to her sweetheart in a box under the Brooklyn Bridge a few minutes after six o'clock. It reaches the post-office at the same time as the bulky linen envelope from the board of directors. Millions are behind the one, the commercial enterprise and force of men of great financial power, and only the love in a girl's heart behind the other; but the United States makes no distinction. The

shabby, pencil-scrawled envelope of the girl rushes across the continent with the same speed as the fat and valuable package that is smeared with stamps and redolent with importance.

When these two letters reached the post-office they fell into a mass of mail that constantly heaped up, and then spread out like the waves of a great river—hundreds of thousands of letters to every part of the country and for every corner of the world—a flood that had no end.

Men were ready for them; the number did not dismay them. Each package-stamp was the pledge of the government for speedy service. Wagons were on hand to convey them to the waiting mail-trains.

Any other body of men would have been confused, but not the United States post-office. With incredible swiftness these heaps of mail were sorted, and these two letters bound for the most northerly post-office on the Western Hemisphere were thrown into the compartment marked "Seattle," with hundreds more.

Uncle Sam Has the Right of Way.

Inside the hour, with tens of thousands more, they started their journey across the continent with never a second of delay. Every postage-stamp is an imperative command to hurry, hurry, hurry! It is the government's vast and complex task to deliver letters of its citizens. It is the far-flung lines of steel, the trains hurrying at breathless speed, that make possible the daily miracle of the mails

In their journey westward these two Alaska-bound letters reached a city that was tied hand and foot with a big and bitter strike. Not a wheel was turning in the railroad yards. Sullenly the strikers and the stricken faced each other, but the fast mail-train whizzed by just as it had every day for years.

Other great interests might be tampered with and delayed, but not the postal service of the United States.

Only war or the forces of nature can stop the progress of the mails. In the cities the wagons of the Post-Office Department have the right of way over all other vehicles. When the rails are blocked the first cars that go forward are those marked "United States Mail." On the high seas the mail-steamers are forbidden to stop merely to save property. They may pause in their rush across the ocean only to rescue imperiled lives.

At Seattle the boat that was to carry the Alaskan mail was waiting, ready to cast off its lines as soon as the pouch of letters was aboard. It was only a little pouch; but the steamer waited for it, just the same.

Through desolate seas where the fog hangs thick, over long trails across the mountain ranges that towered above endless leagues of black forest—by steam, by dog, by man—the two letters posted in the center of the metropolis of the western world moved forward and northward.

The pouch that held them was as lean as the dogs that toiled onward with the sledge. It was the same sort of grimy sack of canvas and leather, stenciled with the initials of the republic, that holds the letters wherever the flag flies.

Here is one problem of the hundreds of thousands that the postal service of the United States has to solve, aided by the railroads. It is no more difficult than innumerable others. It is only more picturesque.

At any cost, at the expense of any effort, the government must deliver with all possible speed the letters entrusted to its care. The motto of the old "Star Route" service still prevails—"Certainty, Celerity, and Security."

By fast mail-train, by stage, by any other means of transportation possible, the government must deliver letters to Alaska, the Philippines, to any town within its dominion, no matter how remote. Every impediment of time and distance must be surmounted. Thus, in Alaska, all other plans failing, the reindeer post came into play.

The Railroads' Little Bill.

Only once a year, and then during the summer, mail can reach Barrow by water. The two other mails a year must be carried overland. Reindeer have proved the only method. Here is a condition where neither man-power, steam-power, nor dog-power can prevail.

Twice a year, therefore, in this part of Alaska lone figures wait in the red-roofed schoolhouse or on the snow-banks for the incoming mail, the sledge with three reindeer hitched tandem.

Only thirty civilized people live in Barrow, but it is just as important in the eyes of the postal service of the United States to

get letters to this little community as it is to deliver them to some populous city that is linked to the rest of the country by all the facilities of modern transportation.

It is even more important, for enormous sums have to be spent to make service like this in out-of-the-way parts of the world as adequate as possible. It is a profitable proposition to deliver many times a day huge quantities of mail to cities like Chicago, Philadelphia, Boston, and New York; but when it comes to the few letters that are destined to far-off places it is a very different affair.

So, the two-cent stamp that Mary Smith put on her letter to her sweetheart at Barrow represents but a thousandth part of what it cost the government to deliver it.

$50,000,000 to the Railroads.

The importance of the railroads in this problem of postal transportation may be gaged by the fact that in 1908 the government paid the railway companies close to $50,000,000 for hauling the mails. This enormous sum is nearly twenty-five per cent of the total expenditures of this branch of the Federal service. In addition to this, the Post-Office Department paid over $17,000,000 to its 15,000 railway postal clerks that year.

Nearly $70,000,000 is, indeed, a stupendous sum; but when the railroads, and the part they play in postal service, come to be analyzed in connection with the huge amount of detail work they are turning out daily, even this vast amount seems small. For the railroads not only carry the mails from place to place, but while doing so they are transporting on their trains 6,000 traveling post-offices, where each hour of every run letters by the hundreds of thousands are being sorted for distribution.

A bare statement of this sort is only interesting in a statistical way; but here is an instance of how the mails are handled when they are being whirled rapidly across the country at an average speed of forty miles an hour, taking all trains—not only the limited, but the slower ones—into the average.

If the mails were to wait in the post-offices until they were properly sorted and distributed, there would be a tremendous delay. It is probable that in a large number of cases it would take from twelve to twenty-four hours longer for the mails to reach their destination. On fast mail-trains everything possible is sorted after the train starts.

It takes nine hours for the fast mail to reach New York City from Pittsburgh over the Pennsylvania Railroad. On that train the four postal clerks sort out on each trip from 30,000 to 40,000 letters. They make them up in small packages for the different sections of the cities of Philadelphia and New York. Each branch office in these cities gets a package, or perhaps even more than one, of the letters that are to be distributed in the territory that it covers.

Not only this, but special packets are made up for each of the large hotels, banks, department-stores, and commercial houses. That is the way the railway mail works, doing everything it possibly can to save time by seconds and minutes.

Sixteen per cent of all the mail in the United States originates in New York City, eleven per cent in Chicago, while Boston and New England originate about eight per cent. It is the gigantic publishing interests of New York that raise this percentage so high, the mail-order business in Chicago being largely responsible for that city's having the second place.

The entire country is divided into eleven parts for the systematic working of this railway mail service, the division superintendents being stationed in Boston, New York, Washington, Atlanta, Cincinnati, Chicago, St. Louis, San Francisco, Cleveland, St. Paul, and Fort Worth, Texas.

People are so accustomed to getting letters without delay that they do not stop to think of the complicated machinery necessary for delivery.

6,000 Mail-Trains a Day.

Naturally, that division of the East that comprises the States of New York, New Jersey, Pennsylvania, and Delaware and the eastern shore of Maryland has the largest daily individual share of this business. Other divisions may perform prodigies in quick deliveries, but this second division of the railway mail service—the first is at Boston—has its daily schedule of 6,000 mail-trains. Of these, 4,500 are what are known as "baggagemen's trains"—that is, carrying only closed pouches for the South and West. This leaves 1,500 distinct movements in this territory every twenty-four hours where distribution in mail-cars is going on.

All mail service on the railroads is incidental to passenger business. The passengers are first considered from a revenue-earning point of view on all fast trains, and the mail service is comparatively insignificant.

Except for the rather empty honor of being mail-carriers, and hence having the most speedy service between given points, it would, as a matter of fact, pay the railroads better not to carry the mails at all.

Even the experts in the Post-Office Department concede that the railroads are being paid only about half what should come to them. They have to furnish cars and adapt their schedules so as to provide for innumerable connections, and in the long run the business is highly unprofitable to them.

Altogether, a superior sort of service has to be given. On the New York Central lines, from New York to Buffalo, 129 trains a day are run for mail service. This is probably the largest account on the government books with any railroad.

The New York Central is now being paid annually nearly $2,000,000, with an additional allowance of $265,000 for postal-cars. This is at the rate of $4,518.67 a mile of road a year for 411,838 pounds of mail a day on the average that is hauled over 439 miles.

Thus, one single railroad gets more than one-twenty-fifth of the total governmental expenditure for this purpose.

This happens to be because this road carries an enormous quantity of through mail and has a number of big cities and prosperous smaller towns along its tracks.

How the Rates Are Made.

It is interesting to turn from this to the heaviest postal weight carried on any railroad route of the country. This is between New York and Philadelphia over the Pennsylvania lines. The run here is short—only ninety miles. The government pays this company a little less than $500,000 a year, but a much higher rate a mile per annum—$5,448.91—for an average of a little less than 500,000 pounds daily.

The government has a peculiar way of paying for the mail service. It weighs the mails once every four years, dividing the entire country into four sections, and over a period of ninety days weighs every pouch and every package in one of these divisions each year. Section 1, embracing the entire East, was weighed in the spring of 1909. It takes almost a year for the government's experts to tabulate the figures and establish new average rates for the succeeding four years.

Notwithstanding the fact that these four great railroad divisions are known in the Post-Office Department as "contract sections," the railroads really make no contracts at all. The nearest they come to it is signing at each "weighing" what is known as a "Distance Circular." This is a statement on the part of each railroad as to the number of miles and fractions of a mile between each of its stations. It is required by the government in order that it may take financial advantage of any shortening of the lines that has occurred during the preceding four years.

21,000,000,000 Pieces of Mail.

The road that signs this "Distance Circular" also agrees, according to the printed statement, to carry the mail in accordance with the government regulations. That means at the rate fixed by law. What the government pays is 10.96 cents for each mile traversed. In 1905, the latest year that has been calculated, the postal-cars of America traveled 407,000,000 miles—equal to about two round trips to the sun.

As to the rights of the railroads in these postal-carrying matters, former Congressman Jesse Overstreet, of Indiana, when he was chairman of the Post-Office Committee of the House of Representatives, said in a speech that, in his opinion, the railroads were not alone obliged to carry mail at the direction of the government, but that every trolley-car could be pressed into service if necessary and be forced to become a mail-carrier.

During 1908 the railway post-offices—the postal-cars on the trains—assorted and reassorted 21,650,000,000 pieces of mail. Twelve billion was first-class mail. As to this, a leading post-office authority recently said:

"It is estimated that during the fiscal year 1908 the public posted about 7,159,000,000 pieces of first-class mail, and about 4,739,000,000 pieces of other classes—all for domestic destination. Of the first-class mail, about seventy-five per cent was despatched to railroads, and of the other classes over ninety-seven per cent."

AT TIGER-TAIL SIDING.

BY RICHARD MAXWELL WINANS.

A Cub Operator Kicks So Hard at Fate That He Manages To Block a Train-Robbery.

WHEN the big Atlantic rumbled out onto the table, groomed and polished to the very last touch, Dan Thomas, her grizzled old driver, was there to look her over.

There was fast work cut out for 377 that night, and she was one of the few on the line that was able and fit to swing the trick; she and her engineer, Dan Thomas.

"Evenin', Dick!" said Dan, turning to the ruddy fireman fresh from the bunk-house and ready for his run. "How's your workin'-pressure readin' to-night?"

"Poppin', Dan," was the hearty response. "Got a white feather showin', and the gage comin' up steady. Never felt better in my life; and if the symptoms was any stronger, I reckon I'd git a right smart uneasy."

"Mighty glad you're feelin' fit," was Dan Thomas's quiet comment; "you'll need

"YOU'LL NEED ALL YOUR SURPLUS GINGER TO-NIGHT."

all your surplus ginger to-night, Dick—and then some."

"What's on, particular?" queried Dick, throwing his bundle to the gangway.

"They're givin' us 17 away behind the card to-night, along with mighty sharp orders to close up the gap in the schedule over our division, and it's goin' to eat up a lot of steam to do it," said Dan, as he started across the tracks for the despatcher's office.

The rails had been bad on the eastern side of the divide all the afternoon, and Dan Thomas would pick up the heavy limited at the top of the big hill nearly an hour late. Almost all the way over his division, the run was a drift down into the valley through the foothills, it was true, but there was a good deal of level track and some grades to negotiate, and with the almost endless, tortuous curves, it was anything but the easiest run on the line.

To the officials of the road, however, there were very urgent reasons why the sealed express-car on that train should be in Ogden on time, to be sure of making connections with the Espee for Frisco, and they intended that it should be, or would know the reason why, as it was their greatest concern to get it off their hands and on to another line. The general superintendent was aboard and a number of officers representing the express company—all of them men who were a good deal handier with a forty-five than with a pen. If anything was to happen to that car on its way to the Frisco mint, they wanted to be present.

On the train was a telegraph-operator, equipped with what the old linemen know as an emergency outfit, and in case of an attempted hold-up they were prepared to tap the wires at any point for the purpose of sending out a general alarm in all directions. Several disastrous experiences in recent years had made the management cautious, and they were determined in this case to play the winning hand.

"Hully Gee! But ain't it hot four ways from the Big Oven to-night!" sighed Joe as he pushed his chair away from the rough little telegraph-table, walked over to the window and raised it. Then he propped back the screechy little door so that it was open wide.

"It's as hot as it's lonesome, out here in these man-deserted foothills." He raised his elbow and leaned against the door-frame, drawing a breath of fresh air into his lungs as he looked off over the darkened range.

"I don't reckon it ever gits much hotter than it is right now after that hill-ripping thunder-storm, even down in Death Valley, and if it's any more lonesome there, then I pity the poor souls who go through the agony of dyin' in it's forsaken confines.

"If a fellow wanted to take up the long trail quiet-like, with no one around to make a scene, I reckon he couldn't select a more forlorn and lonely spot than this here Tiger-Tail Sidin' to make his start from. If it's on the map, I don't want no acquaintance with the location, that's all. It sure is the limit."

Joe resumed his seat, and the interrupted task of writing, a task to which he devoted unusual care, for it was a letter intended for a certain other lonesome individual just across the divide, whom Joe had reluctantly left behind when they sent him to take his turn on duty at one of the desolate little work train sidings among the foothills.

It was a trick the boys were all given a turn at, during the course of their breaking in, but Joe had chafed at it more than the others, because a few of them had been torn from a daily communion with the only girl.

Joe did the best he could, however, to bridge the unspeakable chasm with two letters a day, handed to friendly trainmen, fastened to the little bows he fashioned of twigs to slip over an outstretched arm as the trains whirled by.

It was easier for him to write out the few messages that came in to him over the wire than to shape up things he wanted to say in a love-letter, so Joe filled and lit another pipe and pondered deeply.

He was soon in the throes of creation again, the up-curling smoke from his pipe rising and drifting lazily out through open door and window, the pungent aroma of the burning tobacco acting as a sedative to his whirring brain.

Three times the instrument near him sounded his call. Joe, however, was far away over the divide, where two brown eyes were looking dreamily into his, and he did not hear.

What were sounders and calls and despatchers and orders and even railroads, when—then Joe came back.

The despatcher was getting desperate, and he was hammering Joe's call over the wire in jig time, when Joe straightened with a start, reached over, and answered the call.

Then there were some sharp questions to answer as to the delay, and in the inter-

missions the sounder snapped out some stinging personalities about absence from post and inattention to duty that put Joe on his fighting edge. But the chief was on the wire, so Joe wisely held his hand.

The order told him that No. 17 was carrying a special consignment of express which was good reason for giving the line more than the ordinary attention that night All lights and switches were to be immediately inspected and tested, and the operator's report filed at once. He was to report every thirty minutes thereafter. They weren't taking any chances of a loose facing-point piling her up along the line on her run that night.

"So long, you cranky old snappin' turtle," Joe growled when the chief had cut out and he had his order on the board. "I guess 17 won't muss up my front yard on account of a loose switch at this no-man's turn-out. Dan's known me ever since he began pounding the code into my pate, 'way back when he was still workin' the key, an' he always found me Johnny-on-the-spot every time the game was called."

Joe pushed his chair aside, picked up a lantern and raised the globe to light it for his round of the switches.

"I wonder—" and Joe let the match burn down to his fingers—"I wonder why Dan quit the key in his prime and took to firin' on the line He sure was a past master at jigglin' the key; couldn't any of 'em send or take faster than him.

"Queer thing, that!" and Joe drew another match along the leg of his overalls.

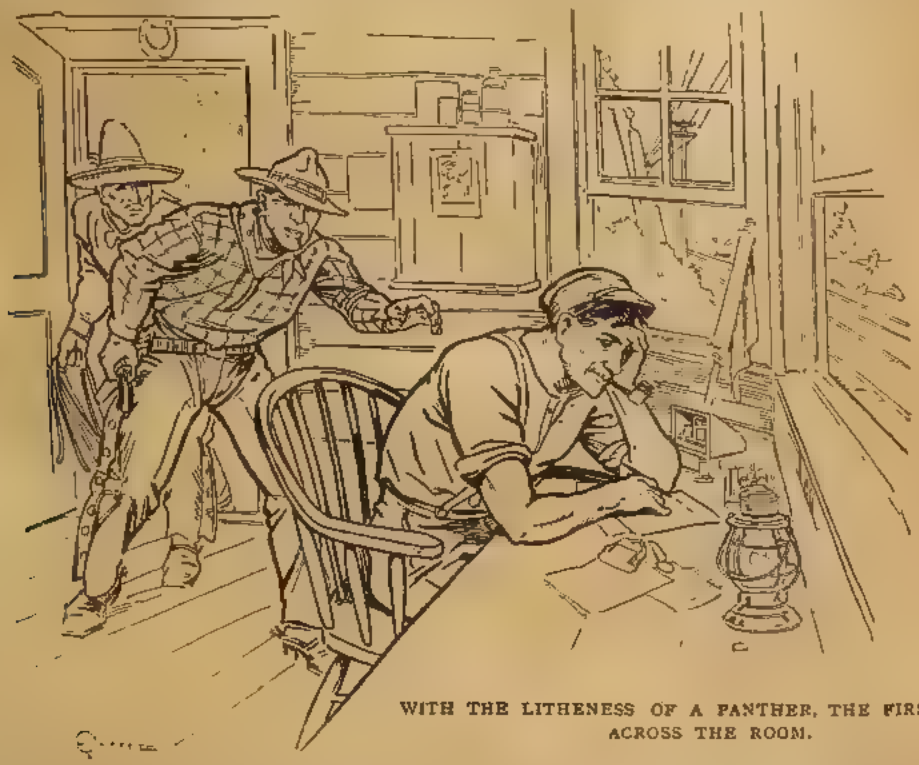
"'Joe, let me give you a tip,' says Dan the day he got me my first job.

"'I had a surprise-party handed me proper, one night shortly before I give up the key,' he goes on. 'It caught me right off the reel when I wasn't lookin', an' it got my nerve.

"'And this is the tip,' says he; 'don't you ever get rattled just because something happens to drop on you, no matter what it is.

"'The yellow streak is barred in the railroad game, kid!' I remember, Dan concluded very emphatic. 'So, if you ever get anything handed to you, why, don't go up in the air, but just hang on and do business regular without gettin' it tangled up,'" and Joe was on his way to the switches.

When he had gone, a swarthy face appeared in the rear doorway. With a look in the direction of the receding lantern, he crossed the floor to the table and picked up the copy of the order Joe had just written.



WITH THE LITHENESS OF A PANTHER, THE FIRST MOVED ACROSS THE ROOM.

"So," he grunted, "thuh tip's straight. Got thuh stuff aboard an' rushin' it through. Oh, yes; the switches will be all right, ole hoss. Don't you worry about that," and he disappeared in the darkness to the east of the shanty.

"They're right as a clock, Mr. Snappin' Turtle," and Joe slid the lantern on the table, opened his key and called the despatcher, tersely sending his report.

Relighting his pipe, he hitched his chair close to the table, and with half an hour on his hands before making his next report, he was soon absorbed in the more pleasing work of finishing the interrupted letter.

Again Joe's mind went trailing over the mountains, and, oblivious to his surroundings, he was unaware of the presence of the burly form that soon appeared in the little doorway at his back.

Besides the first there was soon another, and at their heels came a third. With the litheness of a panther, the first moved across the room, and with the sweep of an upraised arm the butt of a heavy revolver landed in a stinging blow on the side of Joe's head.

"Got him easy, Bill," and other feet clattered over the rough-planked floor.

"Where's thuh string? He's plumb stiff, an'll mighty like stay asleep till mornin', but there's no use invitin' trouble by takin' a chance. Git thuh rope on his mitts, an' tie 'em so's he can't wiggle a finger.

"There, now. Set him back an' lash him tuh th' chair so's he can't work loose if he does come out of it," and the light rope was wound around his arms and body, crossed and knotted to the back and seat of the chair so hard and tight that there was little leeway for the unconscious man to breathe.

"Not enough rope for his legs, eh? Well, what of it? He ain't a goin' to do no walkin' in his sleep, an' he can't untie no knots with his feet. He's helpless as a stuffed jack-rabbit.

"Put your pliers away, Jack. If we cut the wires they'll be looking for trouble and have a special out after us in no time. Just leave the key shut the way it is and they'll more than likely think he's gone to sleep on duty. He doesn't look like he'd be able to send any messages for a while."

Outside there was the clank of iron as a switch-bar was shifted and fell into place, and the eastern switch was open. Number 17 was running against trouble now.

If Dan caught the red in time to stop, the outcome would depend on how well the special crew on 17 were prepared to fight. If he didn't, 17 would be ready for the wreck train and the scrap-yard.

The noisy little clock had ticked off half an hour when the inert form on the chair quivered. A spasm of trembling ran over the body, the muscles twitched, the fingers unclasped and Joe stirred, then was still.

Another ten minutes, and he moved again. There was a mumbling of inarticulate words, and gradually into his dazed brain came a blurred conception of what had happened.

As he gradually regained the use of his muscles, he strained at the cords that held him. He was helpless, but awake at last.

"You murderin' devils! If you hadn't roped and hog-tied me so bloomin' well, I'd soon have the whole line listenin' to me," and Joe struggled to shift his chair across the room toward his key.

"If I can only git close enough to reach that key with my chin, why, maybe I—" his foot slipped and struck heavily against the battery-jar under the end of the table. "Hully mackerel! if I wreck that juice-tank the play's off," and Joe again turned his head toward the goal he was striving for, his key on the table to the right.

"Great howlin' wildcats!" he exclaimed as he found himself unable to budge the chair any farther. "They've got th' block on me goin' an' comin'! They've lashed one of the chair-legs to that spike in the wall. The key's closed; an' so's th' game, I reckon."

His head bowed in despair as he realized his helplessness. Suddenly he looked at the clock.

"Forty-five," he muttered reflectively. "Forty-five. If Dan's got back the lost time, 17's jest about pullin' out o' her last stop on the run—that is, till she strikes this lay-out," and Joe's head again bent over his breast.

With a mental picture of disaster that was to follow torturing his aching brain to desperation, he shuffled his feet on the floor in a frenzy of anxiety, and again there came the clink of glass as his shoe struck the battery-jar.

"You thievin' coyotes!" he cried, and began working his feet feverishly toward the jar. "There's just one more bet to make in this pot—an' the bettin's up to me. I'm goin' to call your hand, jest to show you I ain't of the four-flushin' breed. I think I got you topped, at that."

Crowding down in his chair as much as the ropes would permit, he stretched his right leg toward the wall and soon had worked a battery-jar at least six inches closer. He drew it inch by inch toward him until he could place his foot over its edge. Then, with his toe in a loop of the wire that led to the zinc plate on top, he raised it gently from its position. Tediously, but surely, he lifted it, until it was free of its liquid bath and the sounder on the table gave a sharp click. He then lowered it to the solution, and the sounder clicked again.

With every muscle strained, and his nerves at highest tension, he began working the plate up and down with methodical intervals between the contacts of zinc and liquid that he hoped would be understood somewhere along the line.

It was slow work. The dots and dashes were long drawn out. The message lacked the speed of a nimble finger on the key, but Joe was getting his warning on the wire, even though it was in a toilsome, painful way.

The message was short; only four words and his signature, but it required a full minute to work it out with his foot.

After all, however, it was an uncertainty in the end, for there came no answering tap on his sounder. The trick might fail in turning yet. Heedless of that, he continued with the dogged perseverance of a man playing a losing game pluckily to the end. Each minute the message was repeated, over and over again.

TEDIOUSLY, BUT SURELY, HE LIFTED IT UNTIL IT WAS FREE OF ITS LIQUID BATH.

"What yuh got there?" sang out Dick, as Thomas climbed aboard the engine with a bundle wrapped in a small flour-sack. "Some neighbor's back fence tenor you're takin' out for a farewell tour of the line?"

"Cats be shot! That's the quickest way with 'em, anyhow," and Dan raised the lid of his seat and dropped the package inside. "It's a couple of pounds of good, strong smokin' for Joe down at Tiger-Tail Sidin'. I'm thinkin' he's lonesome in that dump o' nights, an' he'll be burnin' the heart out of his pipe for company when he can git the right fillin's, an' I know the kind he likes better'n any other."

"Always had a soft spot for Joe," said Dick, giving the bell-cord a pull as Dan answered the signal to back out on the line.

"I'd back him in any game he played," said Dan, as he set 377 rolling out.

As she bumped gently against the forward car of the limited, the superintendent pulled himself up into the cab. With a glance at the gage he laid his hand on Dan's shoulder.

"How's your nerve to-night, Thomas?" was his familiar greeting.

"About on a par with the steam-gage up there, Mr. Daniels," was Dan's good-natured reply as he turned his head toward the boiler-head, "and I reckon it's registerin' about all she ought to carry."

"That's good," said the superintendent,

stepping close to Dan perched on his seat. "I want you to give her the whip to-night. Get every possible turn out of her on the straightaways, and take every curve that will stand the strain on speed."

Catching the hand-rail, he was about to swing down when he called back:

"Miller's handing you the ball, so you're off. Remember, you've got to make the junction on the card! Do you get that? All right," and he was gone.

"Depend on this husky to keep the pot a boilin'," was Dick's comment as the 377 took the slack out of the couplings and picked up the heavy load in her wake.

"After all that, he can depend on me to run her in on time, providin' she holds together, even if I have to drag in some of the track and a part of the road-bed along with it." Dan gradually opened up the throttle as she clattered through the switches, cleared the yards and started on her long race against time that was to make a record for the division.

There were only three stops to make on the run, and they were far between. After they swung through Hell Gate she began the four-thousand-foot drift into the foothills through the Frying Pan country and into Red Rock Cañon.

Dick was leaving behind him a volcanic trail of black smoke and cinders as the long string of lights reeled and whirled down the crooked passes, while Dan sat stolid and rigid as part of the cab-fixtures, his keen eye following the lines of steel ahead, his one determination being to catch the schedule if the curves held and she stuck to the track.

With the mighty roar of mountain thunder, 377 was sweeping around the benches, through the cuts and over bridges, her flanges grinding fire on the sharp curves, her eccentrics as close up as she would cut her steam.

There was but one more stop to make, and with only forty miles from there on to cover over straighter track, she had a fighting chance of recovering all her lost time. Dan was making good, although he knew he was putting a terrific strain on both train and track to do it.

When the lights of the last little town before their next stop loomed ahead, Dan whistled for the yards, cut her off to ease her up on the switches, then removed the gauntlet from his hand, drew a 'kerchief from his blouse and wiped the sweat from his perspiring face and neck. As he finished, they approached the last switch-lights, and replacing his 'kerchief he reached up to open the throttle and gave her full head again.

When the bar was out and 377 was settling into her long strides once more, Dan reached to his hip and produced a heavy black plug of tobacco. He'd been too busy to enjoy a surreptitious bite until now, and he felt that he had earned the luxury of a chew after covering the longest and hardest end of the night's run with the schedule assured for his division. The book of regulations had a paragraph of protest against the use of the weed on duty, but they were still more specific against making such reckless speed over this division, for that matter. He had disregarded the last on orders; he could now afford to disregard the first on inclination.

At the last stop, before the final spurt into the end of the division, Dan looked over his machine, his deft hand testing the temperature of the various bearings with exceeding care, while his can was busy filling the partly emptied cups.

"Kind o' leary about Tiger-Tail Sidin'," said the conductor, coming up from the telegraph-office and laying his hand on Dan's shoulder. "Can't get the operator."

"What's that?" and Dan's face was a study as he straightened up. "Can't get Joe Tam? Something's dropped out; take it from me!"

"No; been tryin' a half hour. Don't answer. Guess the kid's asleep at the Bend."

"Asleep!" roared Dan, as he whirled about, his face set. "Cut that! It ain't so! I got Joe his job, knowin' he was right, an' I'll stand for him, personal. D'ye understand! Does the old man know?"

"He's up at the key now," was the response. "Says he'll fire him soon as he gits him on the wire in the morning. The wire's working all right. He just don't answer."

Well, just put it on your book that he won't—not for that," Dan retorted, with feeling. "That storm that rolled through here before we got in has been jugglin' the wires to the west, you'll find—and that'll be the answer."

"Thomas," and the superintendent stood beside them, "hold her easy down through the Paw. Trees reported blown over the track a couple of miles out. Hand-car crew sent out long enough ago to have cleared away by this time; but keep her in control ready to stop sharp, unless you get the all-

right from the section-men, and then cut her loose."

"All right, Mr. Daniels," and Dan lifted his torch to read the yellow flimsy handed him. "No stops from here in. O.K.?"

"Not for anything less than an open switch, a wash-out, or a land-slide, Thomas," and Daniels was about to make a sprint for his car, when he turned: "That cub down at Tiger-Tail is off the job tonight. Watch your lights when you pick up the bend. There'll be a vacancy down there in the morning," and he was off.

"In which case, there'll be two on this line," muttered Dan as he swung for the gangway.

For a mile or more Dan had her pulling hard. Then, as he headed into the stretch where trouble was reported, he closed the flow of steam to a thread and laid his hand on the air, his eye sharp ahead to catch the first show of a light.

Rounding a curve, he suddenly cut on the air, opened the sand, turned her over and give her the big hole. The lights ahead were swinging across the track.

Stopping close to the débris on the line, Dan jumped from his cab and ran forward, uttering scathing commentaries on the slow work of the section-men. There was hard-gained time slipping into the gap again, with small chance now of regaining it."

"Wake up, you sleepin' coyotes!" yelled Dan as he laid hold with his own hands and began tearing at the mat of brush and mass of boulders and tangle of tree-limbs.

"Give a lift here on this rock, Dick," and they were rolling off a boulder that had been dislodged by the upheaved roots of a fallen tree.

"We're mighty lucky we're not going the other way," he called. "It'll take a couple hours' work to clear that inner track, but I guess the section-gang will be able to let us through in less than half an hour."

At the foot of one of the telegraph-poles beside the track, he caught sight of the emergency-operator adjusting his instrument to send out Daniel's order for the wrecking outfit at Hanford to hurry to the scene of the slide. Dan waited until he had finished the message and was about to climb the pole to disconnect his wires, and then stepped forward.

"Wait a minute," he said. "I'd like to raise Tiger-Tail Sidin'. Joe is a friend of mine and I think he's in trouble."

"All right," said the operator. "I must report to Daniels, but I'll be back in a few minutes. Here's the climbing-irons."

Left to himself, Dan went up the pole, made the proper connections and, descending, jerked open the key and hurriedly sent Joe's call out over the wire. He felt sure that it would be ticked off in the little station at the siding if the wires were working properly, but as yet there was no answer. He repeated the call, but there was no response save a few disjointed clicks of the sounder. Again and again he called, but still no answer, only more spasmodic clicks.

"Something's surely wrong," he muttered. "They couldn't raise him at Cold Springs, and here I can't get him either. Guess I'll have to give it up."

Once more he sent the call, and then the sounder began to again move slowly up and down. It's dots and dashes came like the working of a crippled wire, but gradually they took on a semblance of Morse.

Only the sound of the workmen clearing away the débris and the throb of the engine broke the silence as Dan knelt by the little instrument on the rocks, intently listening, all attention, with his face gradually taking on a surprised look of understanding.

"It's mighty piece-meal sendin'," he whispered to himself, "and I'll bet there's not an operator on the line that can make it out, but I guess I've picked it up straight enough, and the signature don't leave any doubt of who's puttin' it on the wire."

"What's up, Thomas?" Daniels shouted down from the tracks.

"Not over sure myself, yet. Only think there's a sleeper awake, that's all," and there was a trace of irony in Dan's reply.

With the outfit slung over his shoulder, he had soon made another ascent of the pole with the experience and the agility of a younger man.

"This is takin' a right smart flier in the prerogatives of railroadin'-rules, I reckon," he said to himself as he groped among the wires, "and the super on the job, at that. But I'm goin' to play this hand alone, and we'll see if Joe and I can't show him that there's two of us awake on this line, anyway. We'll know, leastwise, when we strike the bend at the Sidin'."

In almost no time he had found a through wire, and the click of the instrument came down to those below as he opened the key and begun calling the office at the western end of the division, a town about five miles beyond Tiger-Tail Siding.

When the answer came, he started his sending sharp and fast, increasing in his nervous excitement until he made the key fairly hum. He was in a fretful hurry to get away, and deeply anxious, too, over the result of his message. Twice the operator broke in on him, he was so beyond his speed.

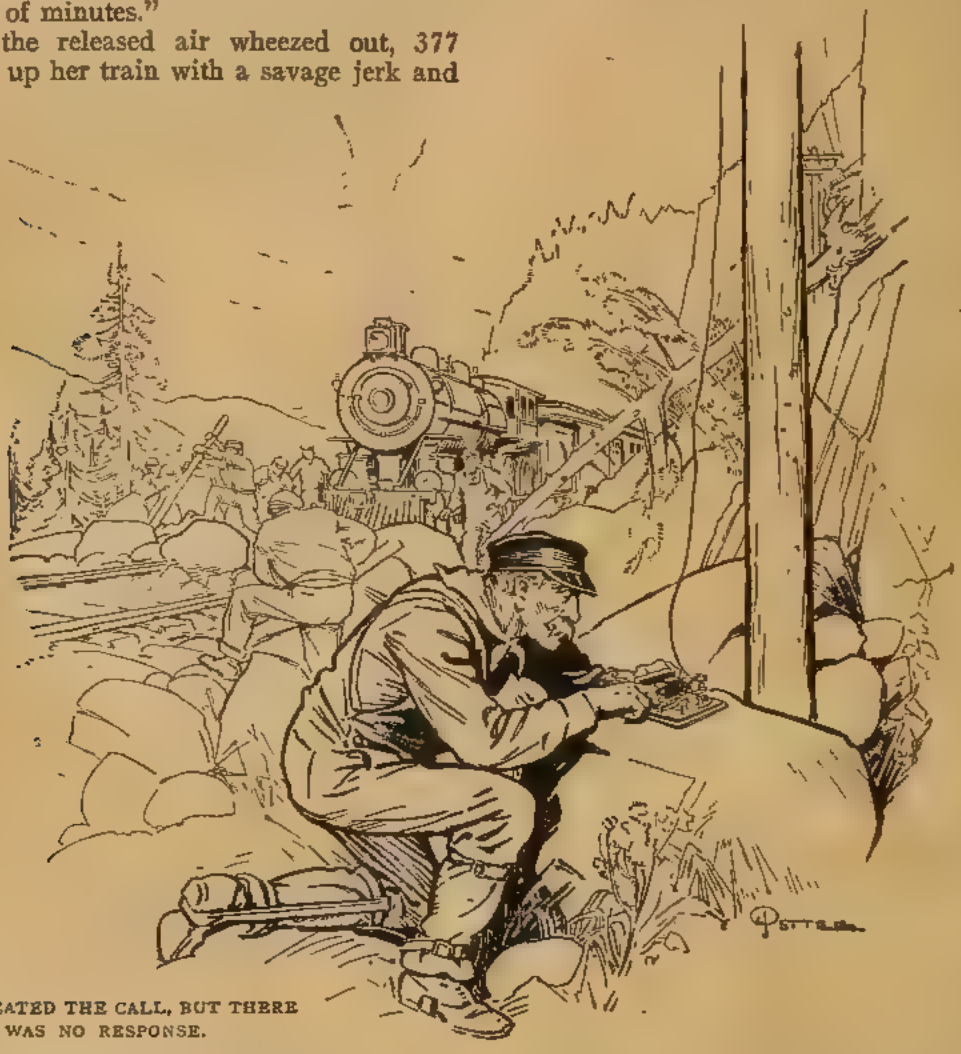
As he closed the key he called to the fireman. "Stand by, Dick, and take this outfit. We ought to be pulling out of here in a couple of minutes."

As the released air wheezed out, 377 picked up her train with a savage jerk and was away on the home-stretch with her safety humming and every pound pulling on the draw-bars, the heavy grade helping her to quickly catch her topmost speed.

"Keep a shakin' that box an' meltin' the coal, Dick. Burn her insides out, if you have to, for I'm goin' to cut off the corners from here in," and Dan began playing every advantage for an extra-fast turn of the wheels. Forty miles to go, and a better track. He'd do it if 377 had it in her.

The nervous strain on the engineer in racing against the schedule at a terrific pace with a heavy train, over a road-bed handicapped by heavy curves, was now overshadowed on Dan's face with an unspoken something that made him look haggard in the dim light of the cab.

She was reeling off mile after mile now, lurching and swaying and swinging as she pounded the rails sidewise on the crooked trail.



HE REPEATED THE CALL, BUT THERE WAS NO RESPONSE.

Ten miles, fifteen—Dan began nervously pulling his watch. Eighteen miles, nineteen—they flashed by the lights of a little town setting in the gloom of a hillside—twenty miles. Dan held the watch in his hand now. He was calculating the time for every move at the junction and the running-time to the siding. Another mile and still another and—Dan straightened in his seat

as a man from whose shoulders a heavy burden had been lifted. He replaced the watch in his pocket. If the thing was according to his understanding and they had acted promptly, it must be over by now. The lines on his face disappeared. The mental strain was over.

Rising from his seat, he removed the cloth-wrapped bundle from the box.

"Hey, Dick!" he yelled, holding out the package. "I don't think there'll be any letter to pick up from Joe to-night, but you can throw that for him at the sidin'. I cal'late he'll need a right smart of that black tobacco to steady up his nerves."

Down through the pass and on to the approach of the Tiger-Tail Bend, 17 rolled with undiminished speed, although Dan reached forward and placed a hand on the air as he peered ahead for the lights of the siding. Then, as he rounded the bend, he straightened again.

Ahead there appeared the headlight of an engine on the spur, many lights were swinging all clear, and 17 bolted through with a deafening roar and a blinding whirl of lights and smoke and cinders, safe on her way to the end of her run and a regained schedule.

There was much talk along the line of how Dan Thomas, the veteran engineer and one time telegrapher, had preempted the prerogative of the despatcher, by ordering out a special and posse from the junction-yards to rout a band of train-robbers and clear the switches before 377 swung through, trailing the crack limited of the road in her wake.

The superintendent first learned of what had really happened when he alighted from his car at the junction. With a bound he was off to find the engineer.

"Dan Thomas, you're a brick!" he exclaimed as he placed both hands on the old veteran's shoulders and looked him squarely in the face. "You outgeneraled me, Thomas, I'll admit, but I won't hold that against you, for I take it you were playing even for what I said about that cub at the siding being asleep—and you won.

"Oh, by the way, Thomas," and Daniels stopped as he turned to go; "I'm going to take that 'cub' back to headquarters with me. I need him."

HIGH-SPEED DEVELOPMENT.

IT is not a matter of very great difficulty to trace why the railroads of other countries have further progressed in making minutes equal miles than what has been accomplished here. The development which the high-speed locomotive has attained abroad, and particularly in England and France, is largely due to the high plane occupied by the motive-power department in the scheme of organization which prevails in those countries. The able men who are at the head of this particular branch of the service are free to work out their ideas in practical form, and to remain untrammelled by the interference which too often here renders the mechanical department subordinate to a degree far out of keeping with its real importance.

The foreign motive-power chief is supreme in his capacity. He reports only to the board of directors, and he has large funds appropriated annually for the sole conduct of experimental work along the lines which might accrue to the benefit of the service. Consequently, a thing which is known to be good does not have to be abandoned merely on account of some incipient failure in minor details, or when the costs commence to run up without definite return. On the contrary, the advantageous arrangement prevailing is such that errors can be corrected and the entire scheme slowly perfected until it is capable of doing better work than the existing appliances.

The mechanical department thus endowed with positive authority, can afford to spend the money in the necessary education of the men who will handle any new type of power which it may have evolved. In France, through an admirable system of premiums, it rewards the engineers and firemen for good work, as it just as effectively, through a system of fines, punishes them for any dereliction of duty. The principal effort, however, is to imbue these men with the spirit of hearty co-operation, and the success of this laudable endeavor does not fall far short in constituting the real reason why the United States has been outstripped in the speed question at least.

They have nothing to learn from us, but we have much to learn from them in the conduct of this particular feature, and until the position as head of the motive-power department is endowed with the dignity and given the latitude in the way of expenditure which should properly be associated with it, not to mention freedom from interference, that department cannot be in a position to assume the lead in working out these world problems.—*American Engineer and Railroad Journa*

Running a British Railway.

BY ROBERT H. ROGERS.

WHILE traveling through Europe in the interests of the RAILROAD MAN'S MAGAZINE, Mr. Rogers did not spend all his time studying the operation of continental systems. After making the run from Paris to Calais on the foot-plate of the wonderful De Glehn locomotive, told in our February number, he crossed the channel and presented his credentials to the officials of the great common-carriers of the British Isles.

He was cordially received and, in a number of cases, was conducted personally through the yards and shops by the railway executives themselves, and given the freedom of the engines on several well-known fast trains. In this article Mr. Rogers gives a vivid pen-picture of the operation of a British railroad's mechanical department, pointing out every phase of the work as compared with our own way of doing things.

An American is inclined to smile when first he sees an English locomotive with its incommodious cab and without headlight, bell, or pilot; but, as Mr. Rogers points out, an English engine has no more use for these features than a dog has for two tails.

The London and Northwestern Railway, Great Britain's Banner Road, Compared with an American Line in Engines, Shops, and Labor Conditions.

THE London and Northwestern Railway may or may not be the best selection as a representative of British locomotive performance and shop practise, but I largely confined myself to it while in Great Britain, because, without a doubt, it is the best-developed railroad for its mileage not only in England but in the entire world.

It is almost impossible to appreciate the magnitude of the capital, equipment, and operation which these 2,977 miles of road can exhibit, a mileage, by the way, so small from an American view-point that the road, if in this country, would scarcely be classed as one of our great railroad systems.

The London and Northwestern, however, is a marvelous enterprise, and before telling you of its practical side, to study which was my real mission abroad, some statistics given me by Frank Ree, its general manager, may be of interest.

These figures were compiled for the year 1908, and many items, to say the least, are amazing:

Capital authorized	$653,865,603
Revenue	$75,523,519
Number of locomotives	2,967
Passenger-cars	9,503
Freight-cars	76,436
Horses	5,609
Road-wagons and carts	6,611
Vessels	16
Vessels jointly owned	8
Stations	850
Double-track mileage	1,678
Total miles of road	2,977
Train-miles run in 1908	48,732,644
Daily non-stop runs of 100 miles	47
Passengers carried (exclusive of season-tickets)	82,933,250
Tons of freight and coal carried	51,964,172

Tons of railroad tickets issued..	60
Number of persons employed...	81,000
Men qualified to render first-aid	8,062
Employees' time-books issued ..	500,000
Meals served in dining-cars . .	1,000,000
L and N-W post-cards sold .	9,074,995
Signal-towers	1,450
Signal-levers in use	37,000
Signal-lamps lighted every-night	20,000

The total engine-mileage for every three hours is equal to a trip around the world; for every thirty hours it amounts to a trip to the moon, and for every fifteen months, to a journey to the sun. The tickets issued during the last ten years, if placed end to end, would make a belt around the earth one and one-quarter inches wide. For each of the London and Northwestern's 3,000 miles of road, there is one locomotive, four freight-cars, twenty-six passenger-cars, and thirty men.

A study of the perfection of detail which must be attained to make all this possible, should be of interest to railroad men in this country, but it does not properly come within the scope of this article, except in relation to the operation of the mechanical department. The intention herein is to tell of how the engines are run, and how they are taken care of in the roundhouses or "running sheds"; features which become interesting in comparison with our own procedure in America.

What is said of the London and Northwestern in this regard is of equal application to any railroad in England, where all locomotive work is attended with painstaking care practically unknown in American practise.

Nothing Is Overlooked.

I have rarely seen a British engine not sufficiently clean for exhibition purposes. There is never a leak about the valve-stem or piston-packing, or about any of the cab-fittings. The chief mechanical engineer made me eventually understand that such conditions would no more be allowed to exist than to start an engine out only working on one side.

After prolonged knocking around the "running sheds" and riding on the locomotives, I became satisfied that this spirit was reflected throughout the entire mechanical department.

I would like to reciprocate the attention bestowed on me by taking my informant around a bit among some of our roundhouses, and he would note features of neglect which he would find hard to reconcile with the capital invested. This is one-half, at least, in explanation of the care which they take of their equipment over there. To them it is money, and it is practically handled as such.

Notwithstanding the cheaper labor and material which prevail in England, engines cost as much to build as they do in this country. The workmanship is generally superior and they are built to last.

Although the London and Northwestern, through changes in motive-power administration and ideas, has "scrapped" more engines in the past few years than any road in England, they were still able to show me engines in every-day service over thirty years old. In this country, the rapid succession of new designs renders power practically obsolete for main-line requirements in at least ten years.

The Largest Railroad Shop.

At the Crewe shops of this road I found 8,000 men employed in the locomotive department alone. This plant is unique in the amount of manufacturing done. This includes the making of boiler plates, the rolling of rails, the manufacture of steel castings, signal and interlocking apparatus, and a variety of other things used on the road.

This great works, the largest railroad shop in the world, all things considered, builds all the new engines required for the London and Northwestern, and, in addition, turns out about seventy new engines a year for renewals. The painting of the new engines is so thoroughly and beautifully done that it becomes really the work of artists instead of painters. It requires all of two weeks, but does not have to be repeated for six years. Fifteen months is the usual period between general repairs.

The men in the large repair-shops in England are a comfortable lot. They take life easily and impress the visitor as not intending to work too hard. In fact, in going about the shops the men seem to be inclined to make the work last as long as possible. This may be readily explained, however, by the fact that piece-work is quite common in England, and whenever the men make one and one-third times their day-rate, the price per job is reduced

This readily explains the "navy-yard" pace of the shopmen. Their speed limit is set by the employers, and it is little wonder that repairs are extravagantly expensive.

English foremen are officials with considerable dignity. I met several among them who were technical-school graduates. The workmen hold them in apparent awe, which is in marked contrast with the democracy and freedom so characteristic of an American railroad shop. The foreman in that country is not "Bill," "Fred," "Charley," or "Dick." He is Mr. So-and-So, and you mustn't forget to touch your cap, either.

The "works manager" of an English road is what he ought to be—a real official with his duties confined to the shops themselves. English roads do not have the counterpart of our master mechanics with responsibilities of various kinds over shops, roundhouses, engineers and firemen, wrecking-crews, and what not, with far too little help, and obliged to place dependence on their general foreman for the important shops.

It will not be very long before the Crewe works will turn out its five thousandth new engine. Every effort is being made to have this coincident with the coronation of King George V, in view of the fact that 5,000 minus 2,967, (the present number of locomotives operated,) leaves 2,033 to be accounted for which have lived their day on the Northwestern.

Keeping a Fund.

An admirable provision is made for the maintenance of rolling-stock on English roads generally by setting aside each year a definite amount to be spent for this work. This amount is increased from time to time with the increase in the amount and capacity of the equipment, and it practically forms a depreciation fund for keeping the rolling-stock up to a uniform condition of efficiency.

It might be unfair if I said that the Crewe shops are the best operated in England, but I certainly thought them to be the most interesting, because there is practically nothing used by the railroad which is not made there. The nearest counterpart in such extensive scope in this country can only be found on the Philadelphia and Reading Railway, whose Reading shops manufacture everything, from pressed steel car-shapes to locomotive boiler-tubes. This shop has not purchased anything for repair purposes in more than three years.

Notwithstanding the appeal of the Crewe shops to a railroad man, I was principally attracted by the roundhouse end of the procedure. These "running sheds," as they are called, are all under the direction of the "running superintendent." Their conduct is entirely apart from the supervision extended over the general repair and building-shops, such as Crewe represents.

The Great Western's "Family Tree."

In this connection the organization-plan of a running department may be of special interest.

"Chargemen" are equivalent to foremen; "fitters" are machinists; "boilersmiths" are boilermakers, and "chargemen shedmen" are simply roundhouse labor-gang foremen. "Tubers" are the men who calk leaky flues, and "tube-runners" or "flue-blowers" keep them clean between trips. "Fire-droppers" are ash-pit men, pure and simple, and "bar-layers" are those who look after the maintenance of the grates and attachments, or, as we call them in some quarters, "gratemen."

The diagram shows very clearly who reports to who, and through it can be traced the responsibility which leads ultimately to the head of the running department.

Upon the arrival at the "running shed," the engineer and the hostler who relieves him make a careful examination of the engine. The former reports all defects before going off duty. The engine is then left near the coal-shed in charge of the coal-shed hostler, who places it in proper position for coaling.

All of the work reported by the engineer, and that subsequently discovered by the "running shed" inspectors, is attended to without fail. I have never known of a job, which might still run a dozen trips without causing any trouble, to be let go out without receiving attention.

It may be said that when these locomotives back against their trains they are in as good shape as human watchfulness and skill can place them.

An engineer need feel no uneasiness under these enviable conditions. In the month of May, 1910, there were but two passenger-engine failures on the entire London and Northwestern system.

After being coaled, the engine is taken by the hostler to a point beyond the coal-shed, where his helper, or a boy appointed for the purpose, cleans out the smoke-box. I thought this to be a painfully slow and cumbersome operation. The smoke-boxes should have drop-pipes, through which the sparks could be dropped without the necessity of any one entering the smoke-box.

The engine then passes to the fire-track, or ash-pit, where one fire-dropper stands on the foot-plate and another in the pit. A couple of grate-bars are either pulled up by the former, or pushed up by the latter, and through the opening in the grate thus provided, the contents of the fire-box is dropped into the ash-pan, from whence it is raked into the pit.

They don't seem to enthuse over drop or dump-grates in that country, but they appeal to me as being far more sensible than this clumsy method, in which the grate-bars have to be knocked out of place every trip. It may be added that with very few exceptions the fire is always drawn on arrival.

On completion of this performance, the engine is taken into the "running shed" to be "stabled," and to have the flues cleaned out; the next item in the regular routine which is never departed from. If the shed is of the longitudinal type, which is commonly used in England, with three or four tracks running straight through it, it become necessary to have the tubes "run" or cleaned immediately, because after being placed in position another engine may be put in front of it, rendering the operation of tube-cleaning impracticable. If, however, the shed is round, similar to our roundhouses, the operation may be performed at a time convenient to the "tube-runners."

Furbishing Up a Locomotive.

To clean a set of flues requires from forty to sixty minutes. I was much amused to note that the flue-cleaner used the primitive arrangement of a long rod with a piece of canvas threaded into the end. I did not see flues cleaned by compressed-air anywhere in England, although at Paddington, on the Great Western, I did locate a system of blowing them by steam, the latter being furnished from a small vertical boiler.

Next in order comes the wiping or cleaning of the engine. In the majority of English roundhouses each cleaner follows his own engine, and gang-cleaning, such as is universally followed in this country, is not popular. Needless to add that this work is performed with scrupulous care.

When ready for business, those engines are things of beauty beyond dispute. Not a single part is missed in the wiping, including the brake-levers under the tender and even the bottom of the ash-pan. This is one of the time-honored institutions also, and they would no more think of slighting it than they would the work.

After wiping comes the "bar-laying," in which operation the grates previously knocked out to dump the fire are replaced. This is done either by a long pair of tongs from the outside, or by a boy who goes into the fire-box and who, after putting them into place, rakes off the accumulation of ashes from the top of the brick arch.

The "lighter-up" then throws a few shovels of coal around the fire-box, and one or two scoops of fire in the center, and the locomotive is again ready for business. Of course there may be running repairs, such as reducing brasses, applying packing, and what not, which may further delay the engine several hours, but what has been outlined is the inevitable procedure in connection with every engine which appears on the coal-shed track. After all is finally completed it is set outside to make house-room, exactly as in our own practise.

Some Amazing Wages.

Labor is very poorly compensated in English railroad shops, even when the cheaper possibility of living is taken under consideration. Skilled boilermakers and machinists receive wages which in American money would amount to $1.68 for a day's work of maybe twelve hours, if it happens to be a "running shed" in which they are working, and other occupations are not nearly so well paid. In many instances, engineers hauling the fastest express-trains do not receive over two dollars for a round-trip run lasting all day.

On one occasion I came down from Glasgow to Carlisle on the engine of the London West Coast Express, which is operated between the two cities jointly by the Caledonian and the London and Northwestern Railways. This was a non-stop, round trip run from Glasgow to Carlisle, which are 103 miles apart. The engine left Glasgow at 10 A.M., and returned about 7 P.M. All the engineer received for that round-

trip was eight shillings, or $1.92, and his fireman 4s. 6d., or $1.08.

Imagine a man in this country running a limited express-train 206 miles for $1.92. On many of our roads such a run would pay the engineer $8, while the fireman probably gets $5.

When that British engineer asked me what a corresponding run would pay in my own country I didn't have the heart to tell him the truth.

Another thing, it is well to bear in mind that engineers over there, as well as here, are about the highest-paid skilled labor on the railroad. If the above may be taken as an average for their pay, and I believe it may, as I made many inquiries along that line, what of the minor occupations about the "running sheds," the "tube-runners," "bar-layers," "lighters-up," and so on?

I do not believe that for unskilled labor, that is, labor without a trade behind it, the average pay is more than 4s. or ninety-six cents per day.

In "running sheds," where piece-work is in vogue for wiping engines, blowing flues, and other work which is going on all the time, it is of course possible to make more than this, but not a great deal more. I mentioned in the beginning of this article what happens to the piece-work rate as soon as it becomes evident that big wages are being earned.

Engineers seem to be well content with their pay and with their position. I have been in many of their homes and they appear to live comfortably and enjoy life when off duty, but I can't understand how they do it. The current story on this side of the water that money will go three times as far in England is a fallacy.

Divided into Classes.

It is difficult to get the commonest kind of a meal for eighteen cents. One fairly decent is thirty-six cents, and a good one, sixty cents. I imagine that if a railroad man is caught away from home he buys the eighteen-cent kind or goes without, because he could not afford many of the others.

These men should have more money. They are divided into classes, and they are years and years working up to a place in the first class at the head of the fast express-trains.

The through-freights, or "goods" trains, are worked by second-class men, and most of the long runs are what is called "double home," although instead of doubling back, which might be inferred from the designation, exactly the reverse is the case.

For instance, on the Great Western Railway, a train from Swindon to Exeter is worked through to its destination, and the crew takes rest at Exeter, returning to Swindon the next day on the balancing train. The effect of this arrangement is that an engineer and fireman must be away from their home terminal at least three nights in a week and must necessarily pay board, unless bunk-rooms are provided by the company, and I saw very few of them on English railroads.

The local freights are worked by third-class men, and are almost invariably "single home" jobs—that is, the men take rest at their home station. Switch-engines are worked by the lowest grade of engineers, known as "turners," or "pilotmen."

Climbing the Ladder.

In addition to switching, this grade does most of the relief work, although at some stations where the relief-men have to frequently do long-distance work, third-class men are employed. Relief work is of course most irregular, and is provided for the purpose of keeping the hours of the trainmen within reasonable limits when trains are running late, owing to fog, congested state of the road, or other causes.

It struck me as being a long trip from a fireman's berth to that of a first-class engineer. The firemen generally rise from engine-cleaners, and pass through all of the grades enumerated above, before getting hold of the throttle of a switch-engine. On some of the roads, the men firing the important trains are runners themselves, who have been tempted to give up hauling a freight-train for the shorter passenger hours, even though the pay is less for firing than for running.

The actual running skill required to get the fast British trains over the road on time, did not impress me as being nearly so great as that of the men who handled the De Glehn compounds hauling the Paris-Calais boat-train on the French Northern Railway. In the first place, the locomotives are in perfect trim when delivered by the "running sheds," the road-bed is perfection, and the block-signaling system is the finest in the world.

In the majority of instances the engines

are of the two-cylinder simple-expansion type, exactly as they are here, although a great many of them are built with their cylinders inside the frames and driving a cranked main-axle, instead of being outside and driving the wheel through a crank-pin. Compound engines are no longer popular in England, and since the retirement of the late Mr. Webb, from the London and Northwestern Railway, they have practically disappeared from that system.

Consequently in the cab there is no bewildering complexity of detail, of which I told you in connection with that wonderful De Glehn engine, and which almost requires a specially made man to get out of it what it can give.

These English cab interiors are quite simple. Although, of course, somewhat differently arranged than ours in accordance with varying practise, the basic features are the same, and you would have little trouble in identifying them after a little study. They are generally arranged to be handled from the left side.

The throttle, or "regulator," shoves down in opening instead of pulling out, and the reverse-gear generally operates through a screw-wheel. If the reverse-lever is used, it has some supplementary device to assist in throwing it over. They think that the "Johnson bar" in our practise is too strenuous a detail to cope with, and in many instances which I can recall, I don't know but that they are right.

English locomotives are not disfigured on the outside by pipes as ours are, as they have their injectors and check-valves on the back-head of the boiler in the cab. They also use sight-feed lubricators, air-sanders, and are about equally divided between the Westinghouse automatic and the Eames vacuum brake. They do not have bells, head-lights or pilots, such devices being entirely superfluous in view of the fact that nothing can by any possibility get through the thick edges which line the track on either side

In the Cab of the Northern Mail.

I rode on the engine of the midnight Northern Mail from the gloomy Euston Station in London to Crewe, and I also rode that of the famous West Coast Scotch Express, but I believe the former was the most interesting experience. The train consisted of thirteen mail "vans," the contents of which must be in Glasgow and Edinburgh by late breakfast time, and those two cities are 400 miles away.

When we finally got under way with much discordant clanking of safety-chains and banging over switch-points, I knew enough about railroading to appreciate that this engine had a job cut out for her if she was to get that three hundred tons of weight behind her over the 158 miles to Crewe in only three hours.

It was dark as Erubus as we slipped through the interminable suburbs of the "city of appalling vastness." There was no moon, and as the worthy and prosperous merchants who reside thereabouts retire early, few lights other than the signal-system illuminated our path. Nevertheless, this energetic *Precursor* plunged valiantly into the gloom, and with every revolution of her big seventy-eight-inch drivers settled down to a more businesslike stride.

In less than twenty miles, however, I was completely disillusioned in regard to the oft-claimed easy-riding qualities of engines in the land of beef and ale. This one cut the most remarkable capers of any on which I have ever ridden. Sometimes she would lurch to the right, and instead of recovering herself promptly, would apparently tear off about three miles before again assuming an even keel, and then the performance would be repeated on the left side. Occasionally this would be varied by an up and down, or rocking-horse effect, which created the impression that she was trying to climb over something.

Not an Easy Rider.

Finally, during a pleasing interval where we appeared to skim easily through space, with no rail-contact whatever, I ventured to inquire of the principal gentleman in charge the cause of such extraordinary gyrations.

"She hasn't got enough behind to hold her down, sir," he answered. "That blawsted mail in the vans don't weigh much, ye know, and she hasn't got enough to hold her steady. She'll cut up worse than that going through 'Ampton 'Eath, sir."

I suppose we went through 'Ampton 'Eath, but I didn't see it. There was no seat on the fireman's side of the cab which I was occupying, and in trying to avoid interfering with him, dodging hot injector-pipes, and striving to keep from falling off

altogether in the presence of that peculiar jump-effect, kept me in a perpetual dance which would easily have put the efforts of the Moki Indians to shame.

Finally the driver beckoned me to cross to his side, and indicated a nook wherein I might stow myself behind the little shelf on which he sat. Several times subsequently on the run, I might add, I was constrained to throw both arms around that ample British waist in the manner of the lady who became the bride of young Lochinvar, but matters finally adjusted themselves.

We stopped at Rugby and took on five more mail-cars, and after that she steadied down considerably. The lack of weight in the train may have had something to do with that weird motion, but I am rather inclined to the opinion that it largely resulted from the absence of equalizers on the engine. They believe in hanging their driving-springs independently of one another, a foolish practise, which if it were not for the absolutely perfect track, would prevent any one from living on the foot-plate of the engine when at high speed.

The run into Crewe was a wild dash of about sixty miles in sixty-five minutes. On that home-stretch this thoroughly efficient engine afforded a grand exhibition of what machinery will do when it is right. The additional cars taken on at Rugby did not occasion her the slightest discomfort. There were times when the speed reached easily seventy five miles per hour; an exhilarating pace through the soft air of that English summer night.

Never once did the pointer on the steam-gage vary five pounds from London to the end of the run, and she burned a surprisingly small amount of coal. One injector, working constantly, but throttled about half way down on water, kept the boiler fully supplied. The engineer watched this feature with unusual care, and was very clever in maintaining the water in the glass to practically the same level from start to finish.

With this exception there was nothing unusual in his work, because these clever engines do not require unusual ability to keep them moving. The experience of that trip brought it home to me conclusively that English locomotive designers aim at a machine which will produce results when operated with a minimum of intelligence.

This is exactly the opposite of the ideas prevailing across the channel, where, although they put the stuff in the engine, the engineer has to certainly work his points to get it out.

Maybe the English plan is the best after all, despite my enthusiastic endorsement of the De Glehn compound in a preceding article. At high-speed the engineer is fully occupied in watching the signals and the water. Probably it would be just as well not to bother him with the control of independent cut-off gears, variable exhausts, receiver control valves, and what not.

I noticed particularly that this English engineer never took his eyes off the road for a moment, not even when replying to the few brief questions which I asked him, whereas my friend in France was so constantly occupied with adjustments and readjustments of his controlling-gear that he scarcely saw where he was going.

The men in the cab on this mail-run called every signal to one another in a distinct tone. The engineer would indicate the color, and the fireman would affirm it, or vice versa. Going into Crewe, where there is an intricate interlocking system, the fireman gave his undivided attention to the various semaphores, designating them by letters.

"All right on R." "All right on X," and so on went their calls. It was quite evident that they were carefully trained to keep a good lookout at all times; a feature which has unfortunately not been well developed on French railroads.

The heavy thinking is done by very few men, and they are enormously compensated. F. M. Webb, chief mechanical engineer, or locomotive superintendent, of the Northwestern, received for a salary £7,000, or $35,000 per year. They are willing to pay well a man who can think for his entire department.

It is practically unknown for a subordinate official, not to mention the vast rank and file, to take the initiative. The features of personality and individuality which endow American railroading with such a picturesque aspect are entirely lacking in Great Britain, because the men through the absolutely inflexible system of organization must be largely automatons.

The general scheme is also a wonderful example of absolute subordination, a subordination so complete that individual effort is seriously hindered, if not altogether checked. The men are not naturally self-assertive, as in this country, and could not be, in the face of the prevailing systems.

I COULD HARDLY GET HIM TO STAY IN THE CAB.

BALDY KNOX'S PREMONITION.

BY JAP KUBOVEC.

An Eagle-Eye's Warning Foretold a Wreck but Gave No Hint of a Real Love Affair.

"TO the scrap-pile with such a railroad!" snorted Baldy Knox, engineer of the 1646 with train 66, five hours late as usual, as he leaned out the cab-window and sourly watched Brooks, the head brakeman, line up the switch and give him a sign to pull in on the siding.

"Now we go into the hole here for that special, which also means that we'll probably be stuck for No. 1," he growled, jerking open the throttle with a few more select railroad expressions, while the 1646 picked up the slack and slowly dragged the long, heavy train in on the siding, leaving the main line clear for the coming train.

Baldy finished oiling around, and was soon back on his seat-box.

"I had a premonition that something like this was due to happen just because I wanted to be home early to-day," he explained to Brooks, who was standing in the gangway.

"Here I was aiming to attend the auction and buy those two lots adjoining mine, and now I lose the chance to make a good investment with the few dollars I've sweated and slaved for on this pike."

"That sure is hard luck," admitted Brooks. "I know the lots. They are a good buy. But, say, why don't you wire the wife to go and put in a bid for you? She knows what you intend to pay for them, and might get them as cheap as you could."

"I can see there is no hope for a man like you who never reads the funny papers, Brooks," laughed Baldy. "Did you or any one else ever hear of a woman going to an auction and buying anything without pay-

ing at least three times what it was worth? My wife is one of the finest women in the world, but she has as much right around an auction as you'd have around a Sunday-school.

"But, speaking of premonitions, did either one of you ever have a feeling that something was going to happen while you were out on the road, and then find that it really did?" asked Baldy, reaching over and lighting his pipe at the gage lamp.

"No? Well, as long as we're stuck here for No. 1 and have half an hour to spare, if you fellows will listen, I'll tell you about one I had many years ago that changed the whole course of my life."

Baldy paused, and looked around to see that his audience were in comfortable positions, and not apt to interrupt his remarks.

"I was just past my twenty-second birthday, and had a good job pulling freight out in the Northwest, when I first meets Kate. It was at a Saturday-night social up at Easton, in the main hotel there.

"The place was crowded, and I was looking around for some one to dance with, when Fatty Simmons waddled by with a fine looking girl. The next time they came by I grabbed Fatty and told him he reminded me of a circus where I had seen an elephant and a Shetland pony doing a waltz together, but some rube way-billed as a floor-manager butted in and told me to shut up or get out.

"I never had any too much beauty, and he was a good deal bigger fellow than I was, so I shut up like a clam; but I kept my eyes on the young lady, and in about an hour I braced Fatty and asked him to introduce me to his friend. He did it, all right, and in a nice, neighborly way; but she backed and filled like this old hog does when she tries to pull a double train.

"Seemed to me as though she wasn't stuck much on meeting me or any of my friends from the way she talked; but I used plenty of sand, and stuck right with her until she gave up in disgust and tried to see if she couldn't drive me away with sarcastic remarks. Finally, however, she turned real friendly, and ended by inviting me to call and see her at the hotel where she worked for her uncle.

"Faint heart never won fair lady, was my reasoning; so I borrowed some money from Fatty, and stayed over to accept the invitation the next day before she was troubled with a touch of forgetfulness.

"She was the one that held the switch-list in the lunch-counter department, and it worried me when I saw how she made the rest of the girls get busy; for even then I was ready to ask her to be Mrs. Leonadis Knox, though I wanted to hold the switch-list and do some of the ordering around myself.

"I sat up on a stool and ate pigs' feet at a nickel a throw until my money was gone, and I had to walk three miles to settle my stomach.

"When I got back to Ruckett my troubles commenced. I had missed my turn 'out,' and the 'old man' gave me an awful calling down for not being on hand, and for not reporting a lot of work on the old bunch of scrap I was coaxing over the road at that time. Then, when I did report work, the crowd in the roundhouse overlooked it, and I had engine failures almost every day.

"I dreamed of Kate by night and I thought of her by day, while my fireman cussed and swore as he tried to fire and watch both sides for signals. The trainmen got into a habit of throwing rocks and chunks of coal against the side of the cab, and some of them got fresh and slammed me with their wireless signals instead of the engine.

"Matters went from bad to worse, and the old man called me in on the carpet and politely but sarcastically informed me that I would either have to get over my crazy spell and marry, or look for a new job.

"'I'm perfectly willing to be tied up for keeps,' says I to him; 'but the young lady appears to be deaf, dumb, and blind whenever I try to tell her about the new schedule I want to map out for her.'

"'You're dippy in the dome,' insinuated the old man, who was a whole lot married himself, if we could judge by the reception he received at home after a late session with the gang. 'A woman would sooner sit and listen to that kind of foolishness than to go to a swell café with a millionaire and eat shrimp salad and ice-cream.'

"It is always darkest just before dawn, according to some book of rules; and I guess it's right, for I had made at least ten trips to Easton without telling my tale of wo when, one day, Kate told me that she was going down to Woodland for a month's visit to some friends. Woodland was at the other end of the division, and I would have plenty of time to see her, for I laid over there every third day.

"I put in all my spare time and a lot of the company's planning where and how I'd pop the question and what I'd say, but the month passed before I knew it, and I stopped in on the last day of Kate's visit, determined to do or die. It makes me swear when I think of it. I hadn't been there five minutes when the call-boy comes up and calls me for an 'extra, soon as ready.'

"Of course, I had to go. Kate walked out to the gate with me, while, conversationally, I slipped and slid around like an engine trying to pull through an inch of soft soap, while she stood there with a teasing smile and informed me that she intended to go up into Canada soon and keep house for a brother who was lonesome and needed her badly. I wanted to tell her that I needed her more than all the brothers in the world, but my tongue failed.

"I never could remember how I told her good-by, or how I reached the roundhouse. We pulled out of town, all right; but the first idea I got that we were not making regular time was about six miles down the road, when Seward, the conductor, comes over the top of the train and asks me to open her up a little, so that a farmer back in the caboose can get to Ruckett before his car-load of eggs hatches out.

"From then on I attended strictly to railroading, and we pulled into Oakland just in time to run into one of those wind and rain storms that hit that part of the country as regular as clockwork, and do their level best to wash out the road-bed and throw trees and telegraph-poles across the track.

"As we were coming through the upper end of town I suddenly caught sight of somebody out on the track with a lantern swinging us down like a windmill. Thinking that the rails were blocked, I shot on the air and stopped, but when the fireman, Seward, and I got down and went ahead, we did some tall cussing. A rube whose hen-house had been blown over by the gale had stopped us to keep the train from killing some of his chickens which were out on the right-of-way running in all directions.

"We were some mad, I can tell you, and we gave that fellow a tongue lashing he probably remembered for some time.

"The wires were down in jig time, and the time-card badly twisted. We waited over an hour, until No. 9, which was following us, pulled in, and then the wire on the east end came to life, and we got orders to run as second No. 9 to Ruckett.

"First 9 had orders to meet No. 4 at Auburn, forty miles west of Oakland, but

SOME RUBE WAY-BILLED AS A FLOOR-MANAGER BUTTED IN.

PIGS' FEET AT A NICKEL A THROW.

no mention was made of us on account of the order being put out before the wires went down. Seward ordered the hind brakeman to go out on first No. 9 and hold No. 4 at Palmer, eight miles east of Auburn, in case we couldn't make the time.

"I had seen all kinds of flagging in my six years of railroading at that time; but when Seward went back after the brakeman, something sent a shiver of doubt over me. I knew it was the proper thing to do, but cold, clammy chills kept chasing up and down my back.

"The fireman on the passenger was putting out his green flags and lighting his markers, and I was busy lighting the headlight, when Seward came back to the engine and told me to hike right out after them and do the best I could. He stood gazing off up the track, and I could see something was worrying him, too.

"'What's eating you, Seward?' I blustered, in an attempt to get rid of my nervous feeling. 'Don't you think we will be able to make the time?'

"Seward rose to the bait, just as I thought he would, and muttered: 'Oh, pshaw! Baldy, I know you can make the time, but a feeling has hold of me that I can't seem to shake off. Somewhere up that pike,' and he pointed up the track with a scared look on his face, 'I can see some kind of a mix, and the thoughts of it are worrying me more than I can tell you,' and, shaking his head slowly, he walked back toward the caboose.

"First No. 9 pulled out and went kiting up the road, with Stover, the engineer, shaking his fist at me. I didn't blame him much. Palmer was down in a sag where he always let 'em ramble to make time in getting to the top of the hill, and slowing down to let our flagman off would make him lose a few minutes more. We followed 'em right out, and the excitement of getting started after Stover knocked the nervous feeling out of me until we were a few miles up the road.

"The road from Oakland to Ruckett was about the cussedest and crookedest line that any half-witted surveyor ever laid out. About sixty miles on an air-line, I'd call it, while the rails run for over ninety miles through the roughest kind of country.

"Up a hill and down the other side all the way, with the caboose still coming down one side while the engine was poking her nose up the next one. Following up and down the teeth of a saw is about the nearest description I can think of.

"Lake was the first station out of Oakland where a night office could be found, and the thought of trouble worried me so that I began to hope the wires would be working by the time we reached there, and the operator would have the red light against us. I eased off on the throttle when we hit the lower end of town and only too willing to stop, but the green light was shining bravely in the semaphore over the little shanty. I whistled twice for the board, hoping to scare the operator into thinking he had made a mistake, but the green still loomed up like a headlight, and the operator only gave me a contemptuous stare as we passed.

"Right out of Lake we hit a steep downgrade, and in all of my thirty years of life on an engine I've never had a stronger notion of quitting than I did right then and there. Whether it was my morbid thoughts

or not, I don't know; but somewhere in the misty road ahead I could see a mixed-up jumble of cars and an engine toppled off to one side.

"I could see people moving around and the steam arising from the wrecked engine just as plain as I could see the front end of the engine I was on. Every little feature was so distinct that I almost fell out the cab-window as I felt myself leaning forward to peer around the end of a car to catch the number of the engine.

"I pulled myself together with a few choice remarks to myself that explained how many different kinds of a fool I was. The next curve we hit I looked back as usual to see if we had all the train, and was just in time to see a fusee thrown off the caboose.

"That settled it. It was easy enough to see that the fireman was scared stiff — I could hardly get him to stay in the cab at all—I knew I was so rattled that I wanted to get off the engine and throw up the job—the bunch back on the caboose were troubled with softening of the brain similar to my complaint, or they wouldn't be tossing off fusees for a stop still six miles away. I was still studying the matter over when we spotted a faint light just as we hit a straight stretch of track about three miles from Palmer. At first I thought it was the embers of a burning tree; but I wasn't taking any chances that night, so I slammed on the air and pinches 'em down to five miles an hour or less.

"The fireman and I were watching the light.

"When it changed to green we both gave a yell. I stopped the string with a jerk and whistled out a flag. I looked back and saw the flagman going back and Seward coming up toward the engine.

"I watched the light flicker as it came slowly up the track, and I might as well tell the truth and say I was a whole lot scared I'm not naturally a coward, but things were a whole lot mixed up that night, and I wasn't sure of anything but the fact that every lunkhead on the train, myself included, was expecting something unusual to happen. Whatever it was, it looked to me as though it was right on schedule time and coming up the track to meet us. The fireman was down on the step with a torch held over his head, Seward's lantern could be seen bobbing along over the train, and the hind man was hiking back up the track with his red light. That was the only time in my life that I ever envied a brakeman his job.

"Seward came up and asked the fireman what the trouble was, and I could hear his snort of surprise when he looked up the track. I crawled down where they were, and we went into an excited discussion as to why and what it was. Seward was of the opinion that it was my place to walk down the track and meet it, but I told him the book of rules ordered me to stay with the engine. Then we both agreed that the fireman should go, but the fireman didn't see it that way at all.

"The light kept coming steadily toward the engine. Both Seward and

I RAN FORWARD AND CAUGHT HER.

WE GAVE THAT FELLOW A TONGUE LASHING.

the fireman began to move back toward the train. I was standing by the pilot-beam with a hammer and monkey-wrench in my hands. I knew the tools would be no protection against a ghost -but I had to have something to hold on to. The light was now a blur of white, similar to the way a white barn looks in a dusky twilight, and flashes of red and green light would be seen.

"Seward and the fireman had played tag until they were two cars behind the engine.

"A cold, clammy perspiration was breaking out all over me, and I wanted to run back with Seward, but was afraid to leave the engine. I tried to lay the hammer down on the pilot to take a chew of tobacco, and was so nervous the hammer tapped away on the iron like the sounder in a despatcher's office.

"The ghost was now just in the circle of light thrown by the headlight. I picked up the hammer, and was about to hurl it at the specter when the spook suddenly let out a series of cries with my name in each call. I was nervous enough before, but when that white thing began calling, 'Lonny! Lonny! Help! Help!' you can bet your pay-check I was half crazy, and only weakness kept me from running. Then it suddenly dawned on me that it was a woman, and the voice sounded like Kate's. I ran forward and caught her in my arms just as she fell.

"It was Kate. Kate, with her hair hanging down her back, her white dress covered with dirt and marked with blood-stains from gashes in her hands. How she came to be there, or what the trouble was, did not enter my mind. All I could think of was the story I had tried to tell her so often, and my voice started out like a phonograph with the regulator broken.

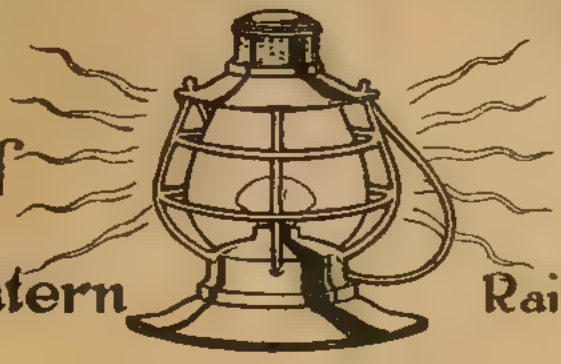
"Seward came running up, and had to grab me by the shoulder and shake hard before I could set the brakes on my tongue; but I had already received my answer in the way that Kate clung to me and sobbed out her story. After I had left she had hurried to the station and taken first No. 9 for home, passing us at Oakland.

"Just outside of Palmer 9 had hit something. The crash was terrific. Several trainmen had been killed, and no one remembered to flag. She had grabbed one of the tail-lights and started back to meet us. The light had two green sides and one red one, which gave the flashes of both colors as she changed the lamp from hand to hand. We put her in the caboose and pulled on into Palmer.

"That's exactly just how I popped the question and won my wife; but why we were all so badly scared that night is something that I've been trying to figure out ever since."

WHAT'S THE ANSWER?

By the Light of the Lantern



Questions Answered for Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. It is limited to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions WILL NOT be answered in this department. All letters should be signed with the full name of the writer, as an indication of his good faith. We will print only his initials.

DESCRIBE methods of taking the port openings and squaring the valves with the Young valve-gear, which is so similar to the Walschaert gear.

(2) How are valves squared with the Baker-Pilliod valve-gear?

(3) Suppose the valve-travel on one side of an engine was more than on the other side, how would this affect the cut-off when the reverse-lever was near the center of the quadrant?—T. J. M., Havre, Montana.

(1) Since the Young valve-gear can be driven equally well by either the Walschaert or the Stephenson motions, any familiarity with the setting of either motion will suffice in this case. In order to obtain the port-openings, remove the valve-chamber heads, whereupon the valves can be plainly seen. The adjustment of any valve-motion, so far as mere squareness is concerned, is dependent upon the equal travel or motion of the valve on either side of a certain middle line, which must necessarily be the center line of the exhaust-port. Therefore, in the Young gear, simply mark the valve-stem as the admission-port begins to open, just as you would with any other gear. The idea is to get marks on the valve-stem from which to work, and these once obtained, the subsequent procedure becomes easy.

(2) The Baker-Pilliod valve-gear when properly constructed and adjusted to the locomotive, passes outside of the pale of the constant consideration of the engineer or mechanic. While liable, of course, to a certain amount of wear and inaccuracy, it is not subject to those erratic variations so peculiar to some forms of valve-gearing. Generally speaking, the eccentric-rod is the only part that may occasion a renewal of adjustment, as the wear of the bearings at the main-crank or in the main driving-boxes may cause a slight variation in point of length of the eccentric-rod.

The gear reach-rod and eccentric-arm, as well as the valve-rod, are all fitted with means for adjustment in regard to length, so that the equalization of the travel of the valve can be readily effected in the original assembling of the parts. The amount of lead, or opening of the valve at the beginning of the stroke, can be increased or diminished by lengthening or shortening the lower arm of the bell-crank.

It will be readily appreciated that by lengthening the arm of the bell-crank attached to the valve-rod connection, an increase in the length of the valve-stroke will be made, and this increase will be added to the amount of valve-opening at the end of the piston-stroke. A corresponding decrease will occur in the case of shortening the bell-crank arm.

These organic changes are seldom required, and it is questionable whether in the instance of a change in the amount of valve-opening being necessary it would not be advisable to make a

change in the combination-lever. By shortening or lengthening this lever, the stroke of the valve will be affected in a lesser degree.

In brief, assuming that the design of the valve-gearing is correct, the adjustment of the parts is a matter comparatively easy of accomplishment, and the contrivance, when once adjusted, has the rare quality of retaining that degree of accuracy which approaches as near perfection as can be expected in the strenuous aggregation of diverse forces which have their being in locomotive service.

We might add for your information, that the original Baker-Pilliod valve-gear, to which your question no doubt refers, has now been considerably modified and improved, and many slight defects in the old gear have been successfully eliminated. In its new form it has recently been applied to several high-speed locomotives of the Central Railroad of New Jersey, and other roads have spoken quite highly of it in high-speed service.

(3) Under the conditions which you mention, the steam will follow the piston farther on the side with the longest valve-travel, irrespective of the position of the reverse-lever, except that the discrepancy will probably be more in evidence with the lever closer to the end of the quadrant. If the error is sufficiently great, it will cause the valves to beat very much out of square, and it should be corrected by raising the side of the valve-motion which swings the longest; that is, of course, after the travel has been equalized on both sides. This adjustment may be made either by shortening the link-hanger or by putting a liner of proper thickness under the rocker-box of the long side. It is difficult to give any rule for the exact amount which the hanger should be shortened, or the rocker-box raised, as they are operations in which past experience proves the best teacher. It is said that one-sixteenth alteration in the hanger means a difference of one inch in the cut-off, but it would be better to prove it for yourself.

As the proper answers to your various questions require unusual space, we are holding Nos. 4 to 7, inclusive, until the next issue.

WHAT other roads in addition to the New York Central, the Pennsylvania, and the Baltimore and Ohio run their trains by block-signals?

(2) When trains are run by block-signals, does the despatcher control the road as he would with train-orders?

(3) What roads use Prairie type locomotives to any extent?—G. C. B., Clinton, Iowa.

(1) There are very few roads to-day on which the block-system is not employed in one of its varied forms — automatic, controlled manual, staff, or telegraph block. The latter is presumed to be least advanced of modern signaling, and is about the least in evidence among the different systems. If you are particularly interested in what has been done and what remains to be accomplished in block-signaling, you can obtain a great array of statistics by addressing the secretary of the Interstate Commerce Commission, Washington, D. C.

(2) Yes, the train-despatcher is always in evidence, no matter whether block-signals are present or not. About all the latter do is to help him out in his work, but there can be no relaxation of the eternal vigilance which has become the slogan of successful and safe railroad operation.

(3) The Atchison, Topeka and Santa Fe; Lake Shore and Michigan Southern; Chicago, Burlington and Quincy; Northern Pacific, Great Northern, and the Wabash railroads seem to favor engines of the Prairie type.

A. B., Sioux City, Iowa.—A. J. Johnson is superintendent, and P. Fraser, assistant superintendent, on the Buffalo, Rochester, and Pittsburgh Railway, at Du Bois, Pennsylvania.

W. L., Chicago.—The Western Pacific Railway is about the largest piece of new construction in the western part of this country at present. It extends from Salt Lake City, Utah, to San Francisco, California, about 950 miles. The master-mechanic of this road is T. M. Vickers, Stockton, California. Beyond this road there are no actually new railroads under way, but many surveys have been completed for extensions to existing lines, and track-laying is being pushed in several instances. None of these, however, are of sufficient scope to necessitate any recent appointments to existing organizations.

ARE car-loads of freight routed via rail and lakes, transferred at Buffalo; or, are the cars themselves ferried across the lakes?

(2) When was the first railroad opened between Baltimore and Philadelphia, and what was its name?

(3) When a train is being helped by a pusher-engine how is a sudden stop made?

(4) Did you ever publish an article on the freight-claim department?—J. L. C., Baltimore

(1) The Pere Marquette car-ferry is across Lake Michigan, and handles much freight in that direction without unloading. At Buffalo, the freight is generally transferred, although we believe that there is a car-ferry in operation between Lewiston and Toronto.

(2) The Philadelphia, Wilmington and Baltimore Railroad was completed in 1838, but the Susquehanna River was not bridged until 1862. Previous to that time the road was operated in two sections: from Baltimore to Havre de Grace, and between Port Deposit and Philadelphia. The Baltimore and Port Deposit Railroad, which was the primary link in the through line to Philadelphia, was finished to Havre de Grace in 1837, and formally opened on July 6 of that year. Sleeping-cars were operated on the Baltimore-Philadelphia

line as early as 1838. They were so constructed that the seats used in day-travel could be converted into two or three tiers of comfortable berths. In addition to these, the company adopted, in 1847, reclining-chair cars for its trains running at nights. A few years ago the name of the road was changed to the Philadelphia, Baltimore and Washington Railroad, and it is included in the operation of the Pennsylvania Railroad system.

(3) Close the throttle of the engine on the head-end of the train and apply the air and it will not go very far even if the pusher fails to take the hint for a moment or so.

(4) See "In the Claim-Agents' Office," by T. S. Dayton, published in THE RAILROAD MAN'S MAGAZINE for August, 1909. Back numbers can be secured by sending 10 cents for a single copy to this office.

HOW is a switch worked so that when the car approaches within about three feet of it it is automatically thrown? It is located on a steep grade, one track continuing on straight and the other turning off at an angle.—C. McK., Pittsburgh.

For light steam or dummy roads, electric roads, or wherever the rolling stock can use heavy curves, automatic switches can be arranged at turn-out points to be thrown by the locomotive itself. The point-rail, as ordinarily arranged in these devices, is held by a housed spring in about the center of a cross-tie at the point. This spring closes the switch after each wheel-flange passes by, the action being similar to that of the hinge-rail of a spring rail-frog. Not many of these are in use, in fact, you will have to make quite a search to find any mention of them in standard works on tracks. We are unable to give any information in regard to the switch which you describe, as it is a locally contrived affair which those using will no doubt explain to you.

ABOUT how many engines has the Michigan Central Railway, and what type are they?

(2) Has this road any articulated compound locomotives?—K. B. K., Hastings, Michigan.

(1) 585 locomotives. The majority are the 8-wheel and 10-wheel types for passenger service, and the mogul and consolidation for freight.

(2) No.

C. W., York, Pennsylvania.—The New York, New Haven and Hartford Railroad has 2,004 miles of road, 1,226 locomotives, and 37,828 cars, of which latter 2,444 are passenger-cars. It also has a controlling interest in the Boston and Maine Railroad, with 2,288 miles, 1,093 locomotives, and 27,710 cars; and in the New York, Ontario and Western, with 494 miles, 181 locomotives, and 7,287 cars. The New Haven also practically controls the Long Island Sound Steamship business and many miles of trolley roads in New England. It is a great railroad system, with engines of all types. The Pennsylvania terminates at Chicago and St. Louis.

WHAT is the Mikado and the Rocky Mountain type of locomotive, and what roads use them?

(2) About how many miles of track does a despatcher control on an Eastern Railroad?

(3) Does the Long Island Railroad use electricity to haul freight?

(4) Where are the Pennsylvania yards in New York City?—J. E. O., Savanna, Illinois.

(1) The Mikado type has a two-wheel truck, eight connected driving-wheels, and a trailer; hence, 2-8-2, according to Whyte's classification, which has been adopted in this country for locomotive wheel base definition. There is no such thing as Rocky Mountain type, at least, not according to the classification mentioned. We have never heard of it.

(2) It varies with the length of the division. About 150 miles of road would be a fair average.

(3) Not to any great extent, although it is planned to include this service in the general electrification of that road.

(4) They are at Sunnyside, Long Island. The motors take the trains from Harrison, New Jersey, under the Hudson River and New York City to Sunnyside, stopping on the way at the new Pennsylvania station in New York City. All trains go through to Sunnyside after discharging passengers, and the car-cleaning and inspection is made at the large yard there.

WHAT are the diameters of the passenger-engine drivers on the Baltimore and Ohio Railroad which are numbered 700, 1300, and 2100?

(2) Where is the water between the rails system used?

(3) How many miles of standard-gage road are there in Nevada?

(4) Have you any record of a railroad in Texas called the New York, Texas and Mexico Railway?

(5) How long is the railroad-bridge across Salt Lake in Utah?—F. B. S., Monessen, Pennsylvania.

(1) The "700" engines on the Baltimore and Ohio were originally of the 8-wheel American type (4-4-0), with short fire-boxes. They were all sizes, however, and there is some variation in the driving-wheel diameters. It is recalled that those numbered from 752 to 775 had a 69-inch wheel, while it was very much lower under the 796 and others, but 68 inches would about represent the 700 class. There is a difference also in the 1300 class in this regard. The first of these, numbered from 1300 to about 1307, were built in 1892. They were assigned for the heavy-grade work on the Baltimore and Ohio, between Keyser

and Grafton, West Virginia, and had a 66-inch wheel. The next few engines of the 1300 class, which are all 10-wheels (4-6-0), had 72-inch drivers. The 78-inch drivers begin about with engine 1320 and run up to 1336. These latter engines were employed for many years in the fast-trains service between Washington and Philadelphia. Some of them were originally compound-engines, but since then simple cylinders have been applied, and many of the rebuilt engines are still in that service. The 2100 class (4-6-2) all have 74-inch driving-wheels

(2) Track-troughs for scooping water while running are used on the Pennsylvania, the New York Central, Baltimore and Ohio, Lake Shore and Michigan Southern, Reading, and on several other roads where long non-stop runs are in evidence.

(3) There are 1,884 miles of railroad in Nevada

(4) We have no record of this road.

(5) From dry land to dry land, the "cut-off" over the Great Salt Lake covers twenty miles of pile construction. As an example of engineering, and ingenious and substantial construction, there is nothing comparable with it anywhere. It was opened November 28, 1893, and took two years to build. It sweeps away 43.77 miles, eliminates 3,919 degrees of curvature, and 1,515 vertical feet of grade, cuts down the running-time of the fastest train fully two hours, and, through its practically gradeless route, increases the tonnage movable per horse-power almost beyond power to calculate. The total length of the cut-off, from Ogden, Utah, to Lucin, Nevada, is 102.91 miles, while the former route around the head of the Lake was 146 68 miles long

L. G. Y., Youngstown, Ohio.—The division superintendents of the Missouri, Kansas and Texas Railway are located at New Franklin, Sedalia, and Kansas City, Missouri; Parsons, Kansas, and Denison, Texas. We have no information in regard to any oil-burning engines on that road or the other matter on which you request information.

D. W, Trenton, New Jersey.—The Pennsylvania station in New York City is the largest and best-equipped station in this country at present. It will be years before its full capacity will be tested, as it was built to anticipate so far as possible the requirements of the future. The area of the station and yard is 28 acres, and in this there are 16 miles of track. The storage-tracks alone will hold 386 cars. The length of the 21 standing-tracks at the station is 21,500 feet. The station building is 784 feet long and 430 feet wide. The average height above the street is 69 feet, while the maximum is 153 feet. To light the building requires 500 arc, and 20,000 incandescents.

(2) There are 289 Pennsylvania and Long Island trains handled out of the Pennsylvania's New York City station at present; 876 trains are operated in connection with the Boston South Terminal station on summer schedules, and about 400 trains use the new Union depot in Washington, D. C. The St. Louis terminal handles more daily trains than the Washington depot, but less than Boston. The exact figures in this connection are unfortunately not available at this writing. The statistics in regard to passengers handled for 1909 have not come to hand as yet, but we can, no doubt, advise you in next month's magazine

(3) We do not care to attempt any comparison between the popularity of railroads, in fact, it would be impossible to do this with any degree of fairness. They all serve their individual fields satisfactorily, and in the majority of instances comparison would be impossible in view of varying conditions.

G. B., and others, New York City.—We do not know of any concern shipping railroad men to South America. As we have often said before, we cannot too strongly advise against a railroad man giving up a good job in this country to take up the same work in another. Do not think of going there until you have talked the matter over thoroughly with some one who has returned with experience. It is our opinion that you will then give up the idea.

GIVE methods for obtaining degrees of curves —B. E. B., Ralston, Nebraska.

The simplest way of describing a railroad curve is by giving the length of the radius, *i. e.*, the distance from the center to the outside of the circle, or one-half the diameter. The shorter the radius the sharper the curve. The length of the radius is usually stated in feet. English engineers often state the radius in chains (1 chain = 66 feet). The length of the radius of a railroad curve is measured to the center of the track.

Civil engineers designate railroad curves by degrees, using the sign ° for degrees and ' for minutes, there being 60 minutes in one degree. The exact length of radius, which, with an angle of one degree has a chord of 100 feet, is found to be 5729.65 feet. For the sake of convenience, 5,730 is generally taken as the radius of a one-degree curve. If the angle at the point of the "V" is two degrees and the sides are prolonged until 100 feet apart, the length of each side is (almost exactly) one-half as long as when the angle is one degree, or ½ of 5,730—2,865

For a three-degree curve, the radius is one-third of 5,730, and so on. For perfect exactness, the length of 100 feet should be measured, not along a straight line connecting the ends of the "V," but along the line of the circle of which the sides of the "V" are radii *i. e.* the arc should be used and not the chord

The difference, however, is so slight, for any curves ordinarily used on main lines of standard-gage railroads, as to be ignored in practise. For extremely sharp curves, of say 100 feet radius or less, it is usual to express the curve by feet radius rather than by degrees. A very simple method of finding degree of curvature without mathematical calculations, is to run out 62 feet of a steel tape, and stretch it between two points against the inside rail on the curve. Then measure from the exact center of the tape, the 31 foot mark, to the edge of the inside rail, and this distance in inches represents the degree of curvature

You will have to make our other question regarding "expansion-plugs" between rails more explicit before we can attempt an answer.

L. G., Urbana, Illinois.—It would be impossible to learn telegraphy from a book, and we have none to recommend. There are a number of good schools where this profession is taught. Write to the International Correspondence Schools, Box 861, Scranton, Pennsylvania.

IS there a road in the Northwest known as the Alberta Central? Who is its master-mechanic?—V. E., Chicago

The Alberta Railway and Irrigation Company, 66 miles long, from Lethbridge (Canadian Pacific connection) to Sweet Grass (Great Northern connection), is probably the road to which you refer. It operates a total of 113 miles, and has 8 locomotives and 85 cars. T. McNabb, Lethbridge, Alberta, is master-mechanic.

HOW does a locomotive work?—F. L. C., Toledo, Ohio

We cannot reply to this as briefly as you have propounded the question, and we are somewhat at a loss how to answer you at all. We don't know how much elementary knowledge you possess in regard to a locomotive. However, we will do the best we can.

The steam-locomotive consists of a boiler and engine, mounted on a frame which is supported on wheels, the latter being turned by the engine. The boiler contains water, and has a fire-box, forming part of it, in which fuel is burned to supply heat to the water and convert it into steam. The steam passes through a valve, called a throttle-valve, thence through pipes to the steam-chests; from which valves, operated by a connection from the main-shaft or axle, automatically admit it alternately to each end of the cylinders, and exhaust it therefrom into the atmosphere through the exhaust-pipe and stack.

The expansive force of the steam moves the pistons, piston-rods, and cross-heads back and forth, and as the cross-head moves in guides and has one end of the main-rod connected to it at the wrist-pin, while the other end of the main-rod is connected to the crank-pin on the driving-wheel, the reciprocating motion of the piston is thereby changed into the rotary motion of the driving-wheels. This description could, of course, be elaborated in detail to fill a dozen magazines the size of this, but the above may suffice to give you an idea. You might read to advantage "How a Locomotive Boiler Works," and "The Inside History of a Locomotive," which appeared in THE RAILROAD MAN'S MAGAZINE, September and October 1907, respectively.

I HAVE argued that locomotive driving wheels are cast and have a steel tire; and that the freight-car wheels are made of cast iron. Is this right? I would like to know whether there is any wood-fiber under locomotive-tires, and if there is a wood-fiber driver in existence. G. P., New York City.

You are right in both contentions. Locomotive driving-wheels may be of cast iron or cast steel, the latter being now in more general use. Both have a steel tire which is bored somewhat smaller than the wheel, and then heated to secure the expansion to get it on. The contraction when cold ordinarily serves to hold it, but in many cases additional safeguards are employed, such as tire-retaining rings and set-screws passing through the wheel-rim between the spokes and into the tire.

Wrought-iron wheels for locomotives have been used in England, and, no doubt, many may be found there yet. Their construction is decidedly interesting in view of the fact that it requires many sections welded together to form a wheel, and the completed job represents about the highest development of the blacksmith's art. Freight-car wheels in this country are always of cast iron, without tires, but the tread is chilled or hardened. Wood-fiber is not used as you suggest.

The Baldwin Locomotive Works has turned out close to 60 engines in a single week. Even then, probably, the capacity of the plant was not fully tested.

HAS the Pennsylvania Railroad any engines of the Pacific type larger than the 2115 of the Baltimore and Ohio?

(2) Which engine do you consider the speediest of the two types, the American (4-4-0) or the Atlantic (4-4-2)? Equal size drivers, cylinders, etc.—H. C. V., Pittsburgh.

(1) The Baltimore and Ohio engine 2115, of the 4-6-2, or Pacific type, weighs 229,500 pounds, while the heaviest Pennsylvania of the same type has a total weight of 272,500 pounds. The Pennsylvania engine is also some 33,000 pounds heavier on drivers. The tractive effort of the Baltimore and Ohio engine, however, is in excess of this monster, and under even conditions it should prove as efficient.

(2) Your first pencil sketch indicates an

American, or 4-4-0 type, that is, a 4-wheel leading-truck, and 4 connected drivers with no trailer. The addition to this wheel arrangement of a single rear-truck, behind the drivers, converts the American into the Atlantic, or 4-4-2 type. Although there should be very little difference, if any, in speed under the equal conditions which you mention, it would be in favor of the Atlantic type, as the small rear or trailing-truck permits the fire-box to be greatly widened over the 4-4-0. Consequently, with larger grate area and heating surface, there would be more assurance of continuous high-steam pressure, which is a most important factor in the consideration of high locomotive speeds. It might be added that the Atlantic type is recognized as the high-speed engine in both this and foreign countries where the load behind the tender is in keeping with its capacity.

In regard to the other question in your letter, the comparison between Baltimore and Ohio 2115 and Baltimore and Ohio 1441 and 1451; although we have the completed dimension figures on 2115, we regret very much that they are not at hand at this writing for the 1441. These tabular comparisons which you request are always very interesting, and it is our intention to give them in that form whenever wanted. If it will be of any value to you, however, without the tabulated data, we can say there is little comparison possible between the two engines mentioned and the big Pacific 2115. They are Atlantics (4-4-2), and are much lighter than the latter. We will publish the dimension-tables next month, and you may draw your own conclusions. You need not apologize for your interesting letters, as we are glad to hear from you at any time. The harder the nut you give us to crack the better we like it. If we don't know ourselves we happen to be so fortunately fixed that we can soon get in touch with some one who does

G. G., Valparaiso, Indiana. All railroads running west from Chicago require an eye examination for operators, but in regard to the physical examination we are not so certain. This would of course apply on roads maintaining an employees' relief department. It is nothing which any man in possession of average good health need fear.

L. J. D., Chicago.—(1) The grade on the Santa Fe over Raton Mountain is the steepest of any on the three roads you mention

(2) Don't know of any road using two firemen on the same engine in this country as a regular thing, although in view of the large number of Mallet engines being introduced it may be going on experimentally.

(3) The longest stretch of straight track on the Canadian Pacific Railway is from Regina to Arcola, where there is 91 miles without a curve The Santa Fe has about 50 miles between Fort Madison, Iowa, and Galesburg, Illinois.

(4) The length of the Canadian Pacific Railway, from Montreal to Vancouver, is 2,898 miles, or to Seattle, 3,064 miles. That of the Atchison, Topeka and Santa Fe is, Chicago to Oakland, 2,578 miles.

R. M. P., Craftonville, California.—(1) The ordinary duration of any apprentice shop is four years, unless some special arrangement is made to the contrary.

(2 and 3) There is generally steady work for an apprentice winter and summer, and his pay is raised a small amount every year.

(4) A start can be made at any time when the road approves the application.

HOW should a fire be built up in a locomotive before starting on the run?

(2) How often should fresh coal be applied to a fire?

(3) If a hole appears in the fire, how should it be treated?

(4) State as fully as you can just when the blower should be used?

(5) In making station stops should a fresh fire be put in at shutting off or when starting?

(6) In approaching long down-grades how should the fire be handled?—C. A. J., Salt Creek, Colorado

(1) The success of a trip over a division depends very much on how the start is made. A fireman with an interest in his work should reach the engine soon enough before starting-time to have the fire in the condition most favorable to making steam for the start. A hard and fast line cannot be recommended, because the conditions under which the start is made must influence to a great extent the kind of fire that must be on the grates. A heavy, hard-pulling train starting upon an ascending grade through the street of a town and long yards, will call for a fire different from that which is necessary when the train is light, and easy grades are met at the start without yards and streets that demand the fireman's attention to signals. At all events, when the train is ready to start there should be a glowing fire on the grates of a depth sufficient to keep up steam until after the reverse-lever has been notched back and the train worked into speed.

(2) The good fireman maintains the fire in a condition to suit the work which the engine has to do. At parts of the road where the grades materially increase the work to be done, he makes the fire heavier to suit the circumstances. This is done gradually and not by pitching a heavy charge into the fire-box at one time. This system of steady firing keeps the temperature of the boiler as even as possible, and has the double result of being easy on the boiler and using the fuel to the best advantage. The fire should be maintained nearly level and the coal supplied so that the sides and corners of the fire-box are well filled, for there the liability to drawing air is most imminent

With this system closely followed, there should be no difficulty in keeping up a steady head of steam.

(3) When a hole appears in the fire it should be promptly located and filled, either by throwing lump-coal into it or by leveling the fire to cover it. It is, of course, apparent that the presence of a hole concentrates the draft largely in that quarter and has a most detrimental effect on the combustion which should be going on uniformly all over the grate-bars

(4) The blower should be used principally to carry off the smoke, which has a tendency to trail when the engine is shut off. It can best be prevented by refraining from putting in fresh coal for a few moments before the throttle is closed. Other uses for the blower will from time to time suggest themselves to any observant fireman. The blower should not be left on any longer around stations than is absolutely necessary. In addition to the discomfort occasioned by its noise, it will blow away considerable steam at the pops.

(5) When approaching a stopping-place, the fireman should be careful to have a sufficiently heavy fire prepared as a preliminary, so that he will not have to commence firing until the start is made. If this has been neglected, however, it is better to throw in a fresh supply of coal while the engine is standing at the station. The common practise of throwing open the door and commencing to fire as soon as the throttle is opened is very hard on the fire-boxes, because the cold air drawn through the door strikes the fire-box sheets and tubes, contracting the metal and tending to produce leakages. Firing just as a train is pulling out of a station is bad for another reason. At that time, the fireman should be assisting the engineer in looking out for the signals

(6) It depends entirely on the conditions of the road and run. If other grades are to be surmounted, care must be taken that the fire does not burn down too low for the hard pull to come. This is a point where your experience will form a better guide than anything we can say here.

FROM THE SANTA FE LETTER FILE.

THE following letter, while in reality referring to some claim papers which had been forwarded to the superintendent, might convey the impression that the animal in question accompanied a formal letter:

yeso N Mex augs 11-1910

Mr F L Myers
Dear Sir

The cow that was kild Hear the secion Boss sent in W G Searcey it has Bin So Long I Dident now whether you had got it or Not Pleas Let Me Hear from you & oblige.

S. F. T——

* * *

A section-foreman who had been given a better section concluded his letter of thanks to the road-master with the following rather ambiguous statement:

I have moved now and will do all in my power to gain best results. I think I will like this town very well, also my wife.

* * *

A letter received by Roadmaster O'Dowd, at Temple, Tex.:

Mr. F. D. Odoll, Sir: I have work at Temple in yard for Paul-yugems 6 day and had to come home and the clerk said he would forde my check to Dallas, Texas, Oblige me, please Sir Yours

S. B——

I had it mad paybil at Temple, pleas send it to S——.

* * *

The following letter was received at the San Francisco station a short time ago:

S. F. 5-19-1910

Santa Fee Freicht Depot, San Francisco, Cal.
Dear Sir —Enclosed i send you the freicht Bill, the Bill from the Marbel Yard and your paper. Thise is for the Marbel Slap that was brocken during the time myn Furniture was en route from Fresno to hiere. I shipped the same on the 19th last month and it arrived her on the 21st. When i send the Expressman down to haul it he found that the slap was broken. He singht for this on the Freight Bill from Fresno, and afterreweight of the furniture he paid $3.00 more. I paid for all the charge, me in Fresno $19 90. The broken Marbel slap is 3-6x1-6x06 as you see on Bill and weight 65 lbs. As you told me to have one made and send in the bill for it, wath i here with do i did not got fhe slap before to 2nd of this month and is still yet at the marbel yard for i have not paid for it yet. So please will you let me knowe wath the Compagnie is going to due, as you told me the Comp gives only $10 on 100 lbs. Please notefy me as sune as you can as the man from the marbel yard wants his money. Hoping to here from you soon i remane

Yours veiye
Thruly etc., etc.
F—— D——

—*Santa Fe Employees' Magazine.*

* * *

Scorning matrimonial bureaus, the young lady who wrote the following letter to J. C. McKee, agent at Waterloo, Oklahoma, keeps her eye open for available material and proceeds in her own manner:

Guthrie, Okla.

Santa fa depo agent
Waterloo

i hurd their wos a new santa fe depo agent down their that haint never been merryed yet i am 18 years old an good lokin an can read an rite perty good if i never did went to school let me no how old you was i haint never merryed myself yet eather

yourn forever

THROUGH BY SUNRISE.

BY WILLIAM S. WRIGHT.

Clifford Tells a Story and Love Finds a Way To Unite Three Happy Hearts.

CHAPTER XVI.

Love's Demands.

A GENUINE acknowledgment of love is never lost on a sincere woman. Elaine Aldyce felt in the innermost recesses of her heart that George Clifford meant every word that he had uttered on the deck of the Titan.

There was something in his tone and manner that precluded any possibility of doubt. George Clifford loved her. Of that there was no gainsaying.

The question that rankled in her heart was whether or not she loved him. Love, to her, was the purest and holiest condition that a united man and woman could know. It should exist as strong in the one as in the other. There should be no doubts. The woman should not only be sure of the man, but sure of his love.

The man should not only be the lover and protector of the woman, but know that she has found in him the ideal of her fancy—for it is on fancy as much as character and will that a woman builds her love.

Then, too, it was for life—life so far as she would know it. She recalled the words of her dear dead mother—a woman who was a wife and a mother in every sense of that holy combination. Her mother had said: "When you marry, my daughter, be sure that you love—be sure that you love. That is the only basis on which a girl should marry."

All this, and a thousand and one more thoughts, flashed through Elaine's mind as she tore herself from George Clifford's arms and ran like a startled deer to her stateroom.

One or two of the belated passengers saw her and noticed the strange look on her face as she passed them, but they simply surmised another case of seasickness and an overcome lady hastening to the confines of her stateroom.

Once inside, she hastily removed her hat and coat. As the great tears welled to her eyes and blinded them, she threw herself on her bed and wept.

For a long time her sobbing might have been heard by any one passing her door. She seemed to be able to do naught but cry. Then the tears gave way to thoughts—thoughts and thoughts and still more thoughts that would not down came crowding into her brain.

This was the first time in her life that a man had proposed to her. It came as a shock to the girl—for her life had been lived outside of such idea. When it does come to such a girl it is a matter of the most serious import. It affects her whole life.

Sleep soon calmed the troubled girl—sleep without dreams or qualms—and when she awoke the stream of sunlight that illumined her room made her sit up and marvel. She arose and looked in the glass at her red and swollen eyes.

"What a sight!" she said, womanlike, and then she set about her toilet, for she must appear on deck soon and—oh, how would she tell May Pierce!

There came a soft knock at the door.

Elaine opened it cautiously. A white-capped stewardess stood outside.

"Miss Aldyce," she said, "Mr. Clifford wishes to know if you will take breakfast with him and Miss Pierce in the restaurant."

The three fellow travelers had been accustomed to take their meals together in the regular saloon, and an invitation to the restaurant was a little out of the ordinary. Many of the modern ocean liners have an *à la carte* restaurant in conjunction with the regular dining-saloon, where passengers may go at will at any hour of the day or night.

Elaine hesitated a moment. She could not quite comprehend why George Clifford should have sent such an invitation.

"Oh, I don't think—I really don't think that I will take breakfast this morning," she said hesitatingly. "Tell Mr. Clifford that I shall not take breakfast this morning. I will meet him and Miss Pierce later for luncheon."

The stewardess departed, and Elaine turned to make herself presentable. But in a little while she was interrupted by the telephone in her stateroom.

She placed the receiver to her ear. The musical tone of George Clifford's voice greeted her.

"Do accept my invitation—Elaine."

He hesitated before speaking her name.

She did not reply.

"Elaine," he repeated lower, "don't you hear me?"

"Please don't," she said.

"Won't you accept my invitation?" he asked.

"What for?" she asked—and she knew not why she should make so foolish a remark.

"Breakfast in the restaurant," he said. "I want you to come at once."

"Commanding—already!" she answered as her voice broke into a ripple of laughter.

Clifford would have given worlds if he could have taken her into his arms at that moment.

"Why won't the regular saloon do?" she asked.

"Do!" said George, with some emphasis. "It has been closed for an hour. You must remember that you have been sleeping overtime to-day. Miss Pierce and I have been pacing the deck, waiting for you. If you don't come soon, I'll devour the anchor-chains. I'm as hungry as a starved wolf."

"I didn't think that I would take breakfast this morning," said the girl.

"Nonsense," replied Clifford. "You must come. We will wait fifteen minutes for you. Meantime I will go to the steward and order. Besides, Elaine, the English coast is on our bow, and by the time that breakfast is over it will be in splendid view. Now, Elaine, don't be foolish. Come as I wish."

There was something in his voice that seemed to assure Elaine that she should go.

Heretofore she had been immune to such pleading. Nobody could make her do anything against her wishes. Now she felt that it was her desire—nay, her duty—to say that she would do what he so earnestly requested. Some inner motive that had never before manifested itself in her being seemed to be saying, "Yes, yes, yes!" and ere she was aware of it she had said "Yes" so clearly and audibly that there could be no mistaking her meaning.

"Good!" Clifford's voice had the ring of real delight. "Miss Pierce and I will meet you at the entrance to the main saloon. Don't be long. Think of my terrible hunger."

Elaine's fifteen minutes grew into twenty and even thirty before she did put in an appearance.

She had dressed with lightning-like rapidity, but when the final moment came for her to leave her stateroom and face the man who the night before had asked her to be his wife the strain was a little too much.

Just how many times she tried to open the door and step into the passage she could not tell. For moments she sat, trying to muster her courage. She knew that George would be calling her again—and, then, his appetite! She should have some consideration for that!

George Clifford was on the verge of starting to telephone a second time, when he and May Pierce chanced to glance up the wide staircase that led down to the main saloon. They looked just in time to see Elaine—a queen in her simple stateliness—hesitating at the top step.

Clifford thought she had never looked so glorious before. She was attired in a pretty morning gown; a jaunty hat was set nattily on her well-combed hair; she seemed to be the allegory of womanly perfection.

She turned her head away for a moment, and then started down the stairs. Then her eyes caught those of George Clifford, and her face lit up with a smile that was a radiant beam of glory.

Clifford responded with a reassuring smile that dispelled her fears as the morning sun dispels the shadows.

She knew that awful danger—the danger

of meeting him face to face—was over. His smile set her at ease.

He arose and held out his hand. She took it, and looked straight into his face; but, as he pressed her hand with all the warmth of heartfelt assurance, she blushed just the daintiest crimson and turned away.

"Miss Pierce and I are starved to death," said Clifford. "You wait with her a minute, and I will see if breakfast is ready."

He darted into the restaurant. The girls were left alone for a moment. Keen is the perception of woman—aye, keener and more penetrating than that of man. Although Clifford had not divulged to May Pierce either by look or word or sign—even the slightest hint of the understanding that had arisen between Elaine and him, its truth flashed into her mind.

As Clifford dashed to the restaurant, May took her friend's hand.

"What a beautiful morning!" said Elaine.

But two and two and four and four and eight and eight had been dashing through May Pierce's brain, and each addition was just what she anticipated it would be. She didn't heed the time-worn remark about the weather, but, looking Elaine straight in the eye, she said:

"Elaine—Elaine—I think I know why you are so late this morning."

"Why, May, dear—"

"Oh, Elaine, may I—" She drew close to her chum and whispered with every atom of sincerity:

"I congratulate you."

Elaine tried to brush away a tear. There was no use denying. May was a woman, and therefore she knew. Had she been a man, Elaine would have answered. But "you can't fool a woman," and no one knows that fact better than a woman.

Most of the passengers were on deck at the time, peering into the clear offing where the sharp outline of old England's coast was growing more perceptible with each revolution of the boat's propellers. The few who were below at the time, and happened to see two pretty young women in each other's arms, hugging and patting and kissing, might have been a bit surprised; but they were no more surprised than George Clifford when he returned to escort them to the restaurant.

He knew, the moment he saw them, that the cat was out of the bag. At heart he was not sorry, for it would divert the conversation to the subject that was foremost in his mind—and, too, it was evidence that Elaine had taken him seriously.

"I congratulate you, too," said May, offering Clifford her hand. "I congratulate you. You have got the very best girl in all the world!"

"Oh, I haven't accepted him yet!" Elaine said almost aloud, and then looked around, fearing that some one had heard her.

"Oh, but I—" Clifford hesitated.

"A woman always has the privilege of changing her mind," said Elaine.

But there was something in her smile and in the look that came into her eyes that made him understand that she wouldn't.

No matter how pleasant a trip at sea may be, no matter how jolly the journey, or how fine the weather, the sight of land is always welcome. The vast ocean, as observed from shore, fills one with awe. Its power and majesty are difficult to comprehend, and frequently the observer looks at it with a touch of fear. But the sight of land from the sea is an entirely different matter.

One looks upon it as an old friend. It seems to hold out some welcoming, cheering hope, and as it grows from a dim, darkened outline as the ship approaches—until it takes the more visible form of mountains and valleys, with cities nestling here and there, it seems to assure us that we belong to it, and not to the vast stretches of water that surround it.

Something of this sort stirred the heart of Elaine. When the trio went up to the hurricane deck, after the rather elaborate breakfast which Clifford had ordered and which partly served as a feast to celebrate the engagement—although Elaine said that she would not as yet give her consent—the green cliffs of the British mainland were plainly to be seen.

The passengers were all on deck now. Those who thought that they knew were pointing out spots of interest.

The big boat had the currents and the tide in her favor. As the land loomed larger, she seemed to move faster. Before the day was more than three hours past the noon, the Titan was inside the harbor.

Elaine had stood on one side of George Clifford and May on the other. Every new thing that came to their view caused them all the joy of the traveler who is making his journey for the first time.

Finally the Titan was ready for the dock.

She was slowly nosing into the little harbor studded with all manner of craft. More busy than all the rest were the puffing tugs that were to see the liner safe alongside her wharf.

"We had better go down now and finish packing," said May, breaking the silence.

She darted off, leaving George and Elaine alone.

"Isn't it glorious, Elaine?" said the man.

"Glorious! Yes, it is very glorious and wonderful; and I am so happy. I had almost forgotten the real quest of our journey," Elaine said with some feeling.

"I want you to tell me something before we land," said George, leaning close to her.

He slipped her hand into his and waited.

"I want you to say 'Yes,' now—before we go ashore. Just look up into my eyes and say 'Yes.'"

Another moment passed. She did not take her hand from his. He was so close to her that she seemed to be leaning against him for support.

Then, all of a sudden she turned her wonderful face up to his. Her eyes mirrored the glory of life. Her lips parted. She silently muttered so he could just barely hear: "Yes."

A shudder ran through her body. The man, whose wife by that word she had promised to be, squeezed her hand with all the assurance that the situation afforded.

They hurried to their staterooms, for there was little time left for the final packing.

When they appeared on deck again, they had all their traveling-bags with them. England being a free-trade country, the traveler is not molested by inquisitive customs' agents. All that one need do is to go ashore with his trunks.

The only obstacle to his landing is the numberless porters and carriers. These men are ever ready with open palms for tips, but they will work with a will once they receive the price of a drink.

Elaine and May stood aside and admired the clever manner and the swiftness with which George despatched their luggage.

In a few moments they were aboard a train bound for London. There they spent the night. In the morning, when they looked out of the windows of the little hotel near the Inns of Court—that historic section of old London devotedly loved by its corps of barristers—a dense fog enveloped everything.

One must really experience a London fog to understand its density. It will settle over the city for days. During its stay, it is impossible for one to see three feet ahead of him

Many of the stores are closed. The jewelry establishments put up their heavy steel or iron shutters to prevent robbery. The cabmen — on whom the burden of traffic depends—are obliged to lead their horses. They lead the animal by the bridle with one hand, and in the other they carry a torch—the flames of which prevent them from colliding with other vehicles.

The fog kept them indoors for three days. It was declared to be the densest that London had known in years. On the morning of the fourth day it raised sufficiently to allow them to proceed to Euston Station without hindrance. From Euston Station they took the express to Devon.

CHAPTER XVII.

In the Fog.

DURING the three days that Clifford and the girls were held prisoners by the fog of old London, they passed the time telling stories. Both Elaine and May were particularly fond of tales about dogs, and they were not slow in letting George understand that a good dog story would please them more than anything else. So George agreed, and I know that you will want to hear the story that he related about Cobs before we journey on with our friends to Devon. This is just as he told it:

"How can we do it?" Mrs. Lawrie asked.

"It's rough on him—and us," replied Jack Lawrie, tracing the pattern of the carpet with a restless boot-toe, "but—it's—got to be, I suppose. Just like parting with one of ourselves, isn't it? Cobs is—"

Cobs, himself, prevented the finishing of the sentence. Hearing his name, he had leaped out of the hall window-sill, from which point of vantage he had been watching his chum, Fifine, the French poodle, who lived next door, trying to catch sparrows on the lawn. Cobs grinned broadly and chuckled with every muscle of his body when the sparrows dodged the poodle's rushes and chirped contemptuously from the maple boughs.

Resting his chin on his master's knee, Cobs looked up with topaz eyes that were

limpid wells brimming with loyalty. His stump of a tail with "measured beat and slow" declared his affection for his master.

"Good old chap," said Jack, looking down into the honest eyes of the dog.

With a sigh of satisfaction and an acceleration of the tail signals, Cobs removed his chin and crossed the room to pay his *devoirs* to his mistress. Receiving from her a hearty patting and some loving words, he waited until his gentlemanly instincts told him that it was proper to take his departure for the hall window.

A silence fell on the young couple.

"After all, Bea," said Jack, "it's only for a time, you know. Chusmann is a very decent sort. He loves dogs, too. Cobs is sure to have plenty of grub, which he mightn't get for the present if he stuck to us."

"I know, dear," quavered the little woman. "It isn't that I think that Cobs won't be treated kindly or be well taken care of. But—it's the parting with him. I'm sure that he'll be just as miserable without us as we'll be without him."

Jack rose and took the girl in his arms and stopped the quivering of her lips with a touch of his own.

"Of course, of course," he said soothingly, "we'll all of us feel this breaking up of the family, most awfully. But don't forget, Bea, that it's only for a time. Why, the very moment we get that snug mite of a flat not far from Riverside Park, so that Cobs can chevy sparrows and fish for sticks to his heart's content, he'll join us again."

"Are you sure that Chusmann will give him up when we want him?"

"Well, he's consented to sign an agreement to the effect that as soon as we've paid him what we owe him, plus the amount of Cobs's board-bill, Cobs himself is to be returned to us in good condition."

Bea nodded a rather dreary approval of the arrangement.

"Cobs is worth in the open market today—" began Jack.

"Market?" said Mrs. Lawrie, her big eyes wide with vague fear.

"You blessed innocent," laughed her husband, "I believe that you think of a market in connection with saws and cleavers and gory butchers' blocks. No, I don't intend that Cobs shall grace a pot-roast, which, I believe, is Aleutian Islandese for dog-served-in-every-style."

"Don't, Jack."

"All right, dear. But as I was about to say, I could sell Cobs to any fancier for at least a couple of hundred dollars. Chusmann admits this. We owe him nearly fifty dollars. So you see he's got lots of security for his debt. And, Bea, the bully old fellow whispered to me, just as I was leaving: 'My frent, Meester Laweree, ef you vant any meats more, alretty, take 'em. Ve'll sharge 'em up der dog against. You hoongry don't go, s'long dis store opens is, yes? My regarts the leetle frau to and compliments mit this, the bag in!"

"So that's where the chicken came from?" said Bea, with a rippling laugh.

"Yes."

"Why didn't you tell me before? I was horribly afraid that our troubles had driven you to desperation—and our neighbor's roosts."

"I'd raid them soon enough, if I thought you needed a fricassee."

"Silly!" replied the wife, snuggling close to him. "Are you never going to get over that kind of nonsense?"

"Never," said Jack stoutly—and husband and wife straightway forgot their troubles in remembering the things that love had wrought for them.

For three generations the firm had been Lawrie & Son, importers of fiber. The concern was the biggest in the business, and the canniness of McKenzie Lawrie, the founder, seemed to pass, with other assets, from heir to heir. It was an unwritten but stanchly honored law that the eldest son of the head of the firm should, at birth, be made a full-fledged partner, his share of the profits being duly placed to his credit in the care of a regularly appointed guardian.

When this son was of an age to begin his life-work, he took up his burdens of the business as a matter of preordination. And this routine had stood for four generations, Jack being the last link in the chain of the Lawrie traditions.

Long before his son had left college, Mr. Lawrie, with the fatuity of a stubborn father, had planned a matrimonial alliance for Jack, which would mean the ending of an ancient business feud between Lawrie & Son, and its only rival of note, Closely, Bardon & Hollister. As a matter of fact, there wasn't a Bardon or a Hollister any more, but there was a Closely, and he was legions in himself. Closely had an only daughter. Bethida was a trifle *passé*, per-

haps, but she looked pretty well at dinner if the candle shades were of the right color and sufficiently opaque. She was square-shouldered, rode to hounds, and was a member of several women's clubs. But Closely was rich. He limped with a superb gout and possessed a nose of the hue and dimensions of a beet-root. He wasn't averse to an honorable peace with Lawrie, if it didn't mean an appearance of defeat and a lessening of revenue.

Lawrie had sounded Closely about the welding of business interests, by means of a union of Jack and Bethida, and Closely jumped—metaphorically, of course—at the idea. Then followed discussions and conventions, and at length it was agreed that the interests of the two firms should be pooled on the day of Jack's engagement to Bethida, to the utter confusion and overthrow of all rival fiber concerns, great or small.

Jack, on the completion of his college course, was promptly shipped to Europe, and told to remain there for at least two years.

"I am going to make you travel, my boy," said Mr. Lawrie, "so that you may find out how deuced little you know. Of course, you will make an ass of yourself, but don't be more kinds of an ass than you can help. You'll get a liberal monthly allowance, but not a penny more. If you fall into traps, especially those that are baited with petticoats, you will have to wriggle out of them as best you can. Don't look to me for any assistance."

Jack departed, followed his father's instructions to the best of his ability, and returned to the land of his birth freighted with a fair knowledge of the world in general and Paris in particular.

He plunged into business, and at once gave evidence that he was fitted to play the secondary rôle in the cast of Lawrie & Son. After a time, Mr. Lawrie senior bethought himself that affairs were ripe for the introduction of Miss Closely. Jack met the girl, and was a trifle disgusted, but yet more amused, at her mannish fads. Miss Closely, having in mind her approaching thirties, made up to Jack as best she knew how. But the young fellow, in his wildest flights of fancy, never dreamed that Miss Closely, who had been taken into her father's confidence, looked upon him as a prospective husband.

Of course, he never suspected that his father had taken the liberty of mapping out his matrimonial career.

So a year passed. The husband of Jack's only sister died suddenly, and the widow and her two children became members of the Lawrie mansion on Madison Avenue. The girls were respectively six and eight years of age. Elinor, the eldest, was very delicate. It was decided to entrust the preliminary education of the girls to a nursery governess, and Beatrice Tolliver obtained the position. It may be that way down in the tough old heart of Mr. Lawrie there was a touch of compunction for Beatrice, whose father had died after the going up of his firm, which was put out of business by Lawrie & Son's cornering operation.

Miss Tolliver was a wildflower kind of a girl, with eyes of vivid violet and a personality that exuded the delicate sweetness of an evening primrose. Jack promptly fell in love with her, and after months of quiet and persistent wooing, she at length acknowledged that she had just as promptly fallen in love with him.

Of the storm in the Lawrie household when Jack told his father of his feelings for the girl, of the threats, promises, and entreaties with which Mr. Lawrie sought to shake his son's determination to make Beatrice his wife, of the final expulsion of Jack from the firm, plus his two thousand five hundred dollars, and minus his brilliant prospects, and of the amazement that filled the fiber world when, on the day of Jack's marriage, the sign over the offices on Water Street was altered from Lawrie & Son to Lawrie & Company, this history need not deal in detail.

After a rather prolonged honeymoon, Jack obtained a position as buyer with a rival of his father, rented a little house in New Lyons, a residential city on the Sound furnished it prettily, and began to taste the delights of the spring-time of matrimony. It was about this time that Cobs came to be one of the family.

Meantime the unexpected was brewing in the caldron of fate. Lawrie and Closely had more meetings.

"Why should we let that condemned young fool of yours stand in the way of consolidation as we intended?" growled Closely.

"Why, indeed," acquiesced the other. Then came the fiber combine, which bred many failures, killed other combinations, and caused trouble in general.

Jack's turn to feel a touch of one of the tentacles of the octopus came in due course.

"Boss wants to see you in his private office, Mr. Lawrie," said the office-boy one day.

"Jack," began the "old man" hesitatingly, "I've got rather unpleasant news for you."

"Yes?" replied Jack, wondering if his father was ill.

"The fact is—oh! hang it, boy, I'll be frank with you. Old Closely has insisted on your discharge, and—we can't afford to disregard his wishes. We've been threatened with reprisals if we don't get rid of you. Closely knows that you know so much about the inside business of the combine that he's afraid we will take advantage of it. And I think you'll find that he has blacklisted you throughout the trade!"

Jack's mouth and eyes looked dangerous.

"If it weren't for dad," he muttered, "I certainly would put an incidental spoke in Closely's wheel. But—I can't as things are."

"You know what I think of you, personally, Jack," his boss went on. "Yet how can I afford to buck the combine? Count on me as a friend and draw on the cashier for a month ahead."

Jack broke the tidings very gently to Bea that night, Cobs listening meanwhile in his favorite pose—his chin on his master's knee, and Bea, to the intense surprise of her husband, instead of crying, "Oh, dear, what will become of us?" or bursting into tears, came to him with flushed cheeks and shining eyes, and, putting her arms around his neck, said:

"What do we care, dear! My clever, brave old boy, you can do just whatever you set your mind on. I'm only too glad that you're out of that stuffy office. So there!"

The prediction that he was blacklisted in the trade proved to be true. All his old friends were cordial—but nothing more. Some were frank, others tried to spare his feelings, but all were as a unit in refusing him employment. Then he turned to other trades only to find that he was rated as a sort of unskilled laborer, and would be compensated as such.

Next he tried to make use of the technical knowledge he had acquired at college, and discovered that he would have to begin at the foot of the ladder, which he couldn't afford to do. He sought a position as "coach," but found the field overcrowded. He experimented with subscription books and life insurance. Each of these efforts—which in all covered nearly a twelvemonth—brought returns, but of a microscopic sort.

All through those trying days the little wife was a bloom of cheerfulness and comfort. Finally the day arrived when, casting up accounts, he found that he had a bank balance of seventy-three dollars, owed the New Lyons tradespeople about eighty dollars. Another month's rent would soon be due, and he had no employment.

Jack's sister, acting under her physician's advice, had journeyed to the south of France for an indefinite period. So the elder Lawrie was alone in the big house on Madison Avenue. Closely, disregarding his doctor's orders, had celebrated the successful consummation of a big deal with a dinner where the wines outnumbered the courses. The next morning he was found by his valet a purple carcass, the scarlet of his nose defying the pallid touch of death.

Loneliness and trouble wrought a miraculous change in the nature of Lawrie senior, and one day he walked into the office of Jack's ex-employer.

"Ever hear anything of that precious young rascal of mine?"

"No," said the other, "can't say I do. Stay, though, Silsbee, I remember, saw him at the Grand Central depot about a month ago. Said he looked a trifle peaked. Said he was living at New Lyons."

"Umph!" grunted Lawrie senior, and walked out of the office. The other man raised his eyebrows, took some meditative whiffs of his cigar, and muttering, "Shouldn't wonder," began to paw and finger and pull apart a lot of stuff that looked like a tangle of dirty hair.

Lawrie senior was speeding toward New Lyons.

"Looking peaked, is he? Serves him right, confound him. I'll just take a look at the quarters the young fools have. Tumbledown cottage, or a cheap flat, I'll warrant. Hope he's realizing what a fool he's been. Wonder if they have a baby. Of course they have. People who can't keep themselves always try to have a family so as to add to their troubles. If it's a boy, wonder if it looks like Jack."

The train drew into the station. A guarded inquiry at the post-office of the little town put Mr. Lawrie in possession of

Jack's address. But he didn't go there direct.

"They'll be loafing about their piazza, if they have one, and if they happen to see me they'll think I'm here to hoist the white flag," he meditated, and with the assistance of a voluble small boy, made his way to the sea front, determined to wait until dusk before inspecting the home of his son.

On the beach was a small board-walk lined with benches. On one of these Mr. Lawrie sat down, noticing mechanically that the only other occupant was a fat, rosy individual who was smoking a cigar with the aid of a huge meerschaum holder of unmistakable Teutonic manufacture. A band played softly from a point on the rocks, the sands were dotted with couples and family groups, and the unruffled surface of the Sound was flecked by specks of snowy canvas.

Mr. Lawrie had been sitting there for fifteen minutes or so, thinking many things and feeling the emphasis of his loneliness by reason of the companionship of those around him, when he was startled by something cold and clammy being insinuated into the palm of his hand.

Looking down he saw Cobs—Cobs, with a kindly light in his eye, and a cordial, if not effusive, wag of his stump of a tail. Seeing that he was recognized, Cobs once more put his nose trustingly into the hand of the fiber magnate, sniffed meditatively, and again beamed a welcome of a very sincere sort.

The fat, rosy one on the bench burst into unctuous laughter.

"Vell, vell," said he, "Cobs wants frents to make yet. Cobs not often hands shakes like dat oonless he would be chumps, yes."

"Does he belong to you?"

"Ach, no. I myself wish dat he vas mine. He lives his peeples vith—Meester Lawrie and Meesus Lawrie. Fine peoples, yes. See dem dere on the sand—der leetle frau mit the blue dress. Ach, der nicest peeples as vas. But—"

"But what?"

"Vell, I t'inks me dey vas pretty hard up. Dey owes me money, but I don't mind, no. Dey goes to live in New York soon alretty. Cobs he stay mit me ven dey goes."

"Why do you take charge of Cobs?"

"Oh, chust arrangements, frents between. Dat's all. Cobs, he like New Lyons better as New York, yes." And Chusmann wheezed laboriously.

But Mr. Lawrie, accustomed to draw inferences from hints, guessed the situation on the instant, and he felt almost angry with himself because he experienced no satisfaction in learning that Jack was suffering for his alleged disobedience. So he looked long and longingly at the young couple on the sands. He saw how the girl unconsciously leaned against her husband and how the latter as unconsciously supported her, and, seeing, felt something within him soften, melt, and vanish.

Then, with a parting pat for Cobs, who had been snuggling confidingly against his leg all this time, and a friendly nod to Chusmann, Mr. Lawrie, with the loneliness tugging more strangely than ever at his heart-strings, made his way back to the village.

The Lawrie cottage stood in one of the parks of New Lyons wherein each house is separated by a lawn and there are shade-trees in abundance.

The roads in the park are of the serpentine sort, so that a landscape effect is obtained within the compass of a small area.

Opposite the cottage is a wooded slope, on the crest of which stands the house of the rich man of the town. From a picturesque standpoint, the scheme of New Lyons is admirable, but its police force is of an uncertain quantity, and the town council is economical in the matter of street-lights. The town is one of the halting stations of the migratory tramp.

The Lawrie family had just finished their meager supper. The dishes all being washed and things generally tidied up, they were comfortably seated in their little den, when Cobs came to his feet with a bound. Giving tongue to his battle-cry, he made a rush for the street door, at which he scratched frantically.

"Something up for sure," remarked Jack, as he opened the door. The dog, with a fierce growl, bounded over the piazza railing to the lawn below, and made for a writhing heap in the roadway. Jack followed, but before he could overtake the dog, the heap resolved itself into two men, one of whom rose, only to fall prone again, while the other was striking desperately at Cobs, who was clinging like a leech to his wrist.

Cobs was too skilled a warrior to allow himself to be finally vanquished on account of a preliminary advantage, and so

he suddenly loosed his hold. At once the man turned and ran. This was what Cobs wanted. Before the biped had gone a couple of yards, the quadruped, with a long antelopelike leap, had fastened his fangs in the back of the man's neck. Shrieking with pain and terror, he fell backwards, the hot breath and low growls of his captor playing on his face.

"Hold him, Cobs!" shouted Jack. "I'll be there in a moment!" Cobs replied gutturally that he would, sinking his teeth a trifle deeper as he did so.

Bea, peering anxiously from the veranda, heard her husband call:

"Bring a lamp!"

Bea obeyed. The young people saw with amazement, consternation, and pity that the man who had risen and fallen again was Jack's father—insensible, dust-covered, and blood-stained.

"I'll get him into the house at once," said Jack. "You telephone for Dr. Jarkins and get the spare bed ready."

"What about the other man?" asked Bea.

"Dr. Cobs is attending to him, all right. But I'll see to him presently." Taking his father in his arms, Jack carried him very tenderly into the house which he had never expected to see him enter.

It was two days later, and Mr. Lawrie, weak and shaky, but rapidly recovering from the assault upon him, was lying in bed telling Jack and Bea of his adventure. Incidentally he held the hands of his son and daughter-in-law, and his eyes sought their faces hungrily.

"Dear old dad," said Jack, "so you really wanted to see where we were camped out?"

Mr. Lawrie nodded. "Yes," he said, "and and—Jack, you didn't have the shades down in the room in which you were sitting."

"No?"

"No, and so, after I'd seen you and Bea, as I then did, if that scoundrel hadn't given me a tap on the head at that moment, I—think—I—should have asked you for a night's lodging."

Jack squeezed his father's hand convulsively.

"Where is our footpad, by the way," asked Mrs. Lawrie.

"In the hospital—as a prisoner. Cobs mauled him badly. The man turns out to be a hold-up who's very much wanted by the police. Cobs had a narrow squeak for his life, too, for the man was trying to get at him with a knife. He couldn't, as Cobs had sense enough to grab him by the nape of the neck."

"God bless Cobs!" said Mr. Lawrie fervently. "If it hadn't been for him I mightn't have been here with you. Bea, my girl, I don't blame Jack a bit. I was a stubborn, old—"

Bea deliberately placed a rosy palm over his mouth. "You're talking far too much. Now, try and have a good, long nap while Jack and I get up a nice little dinner for you."

Mr. Lawrie smiled drowsily and contentedly. "All right," he said, with a yawn, "and, Jack, I'll have that sign—made—over into Lawrie—and Son. Bea, would you like me to buy you—this cottage for—a—wedding present? Good dog, good dog, good Cobs, good—"

CHAPTER XVIII.

Reunited for Life.

UNCLE Tom and Billee and the household marveled at the three strangers who appeared at the lodge gates one afternoon

A more glorious sunshine had never been seen on the coast, as Devon was popularly known. It seemed as if a day of peculiar brightness had been specially created for the arrival of Elaine and her friends.

Sunshine does so much to bring gladness into our lives, and when Uncle Tom clasped Elaine to his breast and Billee—now a grown girl just budding into the delight of her early years of understanding—greeted her with all the affection of a daughter welcoming her mother, George Clifford and May Pierce stood aside and let the willing tears come to their eyes.

"Billee," said Elaine, motioning to Clifford, "I have brought home your father."

The man and the little girl looked at each other quizzically for a second. It only took the second for the man to see—to know. The child was less sure. She had lived so long an orphan that it was difficult for her to understand that the tall, handsome gentleman, beaming on her with a kindly face, was really one of the lost parents that she had loved as myths.

George Clifford approached the little girl. Getting down on one knee, he held

out his arms to her. The instinct of the child for its parent the wonderful instinct inculcated by Heaven never to die—told little Billee that her life would no longer be devoid of the dearest attraction that a child can know.

She rushed into her father's arms, and the kisses that he showered on her face and neck, the tears that dimmed his eyes and the words of endearment that he uttered, assured her that he was really her father, and that his heart was filled with love and devotion.

And Clifford knew that the little girl was his own. One by one her features slowly unfolded before his eyes; little by little Uncle Tom told his story of the coming of Billee into his possession.

And on that day father and daughter were united in life.

The following morning, George Clifford took his little daughter for a walk through the vast flower-gardens of her foster-parents' home.

When they were finally seated under a great oak, planning all manner of wonderful plans for the future, he said to her:

"Billee, dear, I have found a new mother for you. I want you to be very kind and sweet to her, for she loves you dearly—and she is one of the loveliest beings that Heaven ever created."

"Daddy, I am so happy. Do tell me—who?"

"Elaine," he said. "Elaine, who brought me to you—who found you for me! Elaine who brought the song of the nightingale to America and told me that my little girl was still alive!"

"I'm so happy, dear daddy," said Billee, throwing her arms around his neck. "Isn't she just the sweetest, dearest Elaine?"

A few days later the marriage was solemnized in the little chapel on Uncle Tom's estate. Billee Clifford was the bridesmaid and Uncle Tom was the best man, and May Pierce was a maid of honor with a great bunch of roses.

She thanked Heaven that such happiness could come to man and woman and a little child

For some weeks they lingered at beautiful Devon before returning to New York. And every evening Mr. and Mrs. Clifford and Billee sat in the groves surrounding that old English home, and listened to the song of the nightingales.

"Isn't it wonderful, my darling?" said George.

"Wonderful, oh, so wonderful—so wonderful," answered Elaine.

"And the night before you came," said little Billee, "it seemed as if they didn't get through singing until sunrise."

(The End.)

OLD ENGINEER HONORED.

The Erie Railroad's Reward to Harvey Springstead for the Careful and Intelligent Management of His Engine.

QUITE a sensation was sprung on the Erie employees and patrons when engine 970 recently appeared, looking as if it had just come out of the bandbox; the number had been transferred from under the cab-windows to the sand-box, and the name of its engineer, Harvey Springstead, appeared in big gilt letters on the cab.

No one had seen an engine on the New York Division bearing a man's name since the engineers built the "Daniel Willard" for the Chicago Exposition, in 1900, and this graceful "G-15" engine naturally roused interest and curiosity as to what it all meant.

The distinction was awarded for the excellent performance, the lack of failures, and the general good condition of the engine while under the careful and intelligent management of Mr. Springstead.

The engine was last shopped in October, 1910, having made over 45,000 miles since last previous general repairs.

Engineer Springstead started firing in 1873, on the Goshen way-train, and when "Ed" Haggerty, who was his engineer, retired, in 1886, Harvey, who had just been promoted to engineer, took his place, and has been continuously in the passenger-train service since, with a remarkably good record.

He started railroading when a mere boy and, notwithstanding his long term of service, is still far from the retiring limit, being only 53 years of age, and looks forward to many more years on the running-board.

LARRY LEFT ALONE.

BY MACDUFFIE MARTIN.

Another Odd Happening Helps To Sustain the Ancient Adage, "It Isn't All Gold that Glitters."

LARRY was the first man of his race and color to wander into the forest primeval beyond the Swamac River. That noble body of water was the only route that the Indians had followed into the cold country north of "fifty-three," made famous by the oft-repeated statement that never a law of God or man existed there.

Larry had been a switchman on a little branch of the N. X. ever since he was old enough to go out into the world and support a widowed mother. His father had worked on the line before him, but when he lost his life in a wreck and left absolutely nothing with which to educate his son or keep his widow in bread and meat, Larry was obliged to look into the future without blinking.

It is only natural, therefore, that he should take up the calling in which his father had spent the best years of his life. The division superintendent was willing to give a helping hand. He told Larry that he would have to begin at the beginning, and Larry did begin at the very beginning. On the day that we begin this chronicle of his career, he had worked up to the position of a switchman. And he was a good one.

He was so good on the job that when he announced his intention of quitting and following the ill-conditioned rumors of the Indians that were wafted down from the North, more than one man tried to turn him against them.

These rumors told of wonderful deposits of gold that existed in that faraway spot "north of fifty-three." They were similar to the rumors that made men leave their homes and seek fortunes in the Klondike.

Larry had a mind that turned to riches quickly gained. Unlike his father, he did not believe in a steady position with a certain increase of pay every year and a comfortable, humble home. He didn't want to be one of the great army of men who work for a wage.

He had visions of owning a railroad of his own some day, and when the rumors of gold in the wilderness reached his ears, and he had digested them thoroughly, he said unto himself that he would go thither, come back rich—and, then, who could stop him?

He told his good mother when he started that he would come home rich within a year. Lest she should want for the necessary commonplaces of life during his absence, he turned over to her all his savings—and they amounted to a sum that was not to be sneezed at. Larry was blessed with thrift. All men who know the value of a dollar are blessed with it. He took with him only sufficient to travel so far as the railroad ran—and he haggled with agents for second-class tickets and tourist rates until they were willing to grant his wishes out of sheer despair.

Leaving the final terminus of the railroad, he embarked in a small steamboat up the Swamac. Aboard the boat the rumors were thicker than the gadflies that infested the region in summer.

Larry was told by the red-bearded individual who guided the destiny of the craft that the man who first penetrated the desolate region would not only find gold on the bushes, but he would stumble over it at every step. The only drawback would be the finder's lack of strength to bring back to civilization all that he could carry.

How did the captain know? The In-

dians had told him. He had talked with them time and again on the little wharf at Fifty Hole, the most northerly point on the Swamac where the boat stopped. And, finally, when it did arrive there and started down stream on its homeward journey, Larry watched it with a plaintive watching until it disappeared around a bend between the high palisades that guarded its banks. Then he turned to the Indians.

The gold-fields were miles and miles farther north. He would find them by following the Swamac some ten miles, and then, by making an overland journey of some five or six miles, he would save some distance caused by a bend in the river.

When he reached the river again, he would find a portage. The river could be crossed at that point in a canoe which he would find high on the bank. Once across, he should follow the trail—it would not be hard to find—follow it for another five miles or more. Then Ophir and Montezuma and King Solomon's mines were his!

Larry reached his destination. It was a wild, desolate spot. The river was near by; for that he was thankful. As far as the eye could see, there were great mountains that rolled upward to fields of eternal snow. Around him was a massive prairie, marked hither and yon with clumps of trees and stretches of grass, and the most imposing effect in this wilderness was a small, rocky mountain—perhaps it would be more modest to call it a hill—that jutted out of the earth more like a peculiar monument than anything else.

Undoubtedly, this was the storehouse of the gold. Beyond all doubt, this was the receptacle of his fortune. Within its rock-ribbed sides rested the real thing.

Truly, Mohammed had come to the mountain!

He would delve into it without further ado, fill a scuttle or two of the precious metal, and make his way back to Fifty Hole. Then he would return for another scuttle or two—and so on until he had accumulated sufficient to fill the steamboat when it reached Fifty Hole.

Then he would hike back to his mother and his native town and buy the N. X., and any other road that might happen to be on the market.

When he ceased building his castles in the air, it dawned upon him that he was feeling somewhat lonesome. Of course, there was no human habitation in sight.

Larry was the first of his race and blood to inhabit the place. He had brought bacon and crackers and tea. He had also brought matches carefully rolled in a piece of rubber cloth, and a pipe and some tobacco; but as he gazed over the wild circumjacence, he realized that he had not a place to lay his head.

Perhaps it would be best to return to Fifty Hole and camp there, and make the journey to and from the mountain of gold every day. Brilliant thought! He would then be a commuter in the wilderness. But as he looked at the sun just beginning to tip the mountains in the west, he knew that he could not make Fifty Hole again that night.

Near the base of the mountain of gold he found a little space that nature had caused between two large boulders. The rock rose sharp and perpendicular on either side, the floor was covered with a fine gravel, and the entire opening gave him some six square feet in which to seek some shelter.

It lacked a roof, but that troubled him only a little. The night was clear and there was no sign of rain or wind. Besides, it was only for one night—and surely a man could rough it for one night when fortune was all around him.

He stood between the two boulders—the entrance to his primeval home—and looked around. What a wonderful stillness! What a marvelous quiet! Adjusting his pack so that it rested against the boulder, he stepped outside.

The twilight was just beginning to dim the landscape. He stepped a few feet farther and stopped short; just why, he could not tell. A cold wind suddenly swept over the prairie—the cold, peculiar wind that seems to be born of nightfall, and is known only in such places.

It made him button his coat about his throat. He listened again. He thought he heard a sound.

It was not an unfamiliar sound. He cocked his head to one side to be sure, and then started in its direction. It came from a projection of the hill about a hundred feet away. He walked thither to explore.

The sound was water — water gushing from a spring and rilling along the ground, possibly to the Swamac. He knelt down and drank of it. He hastened back to his cache and returned with his tin kettle and filled it.

"Good!" he said aloud. "I will not have to make a trip to the river every time I want water."

That excitement over, he stood again in the entrance of his primeval home. From the river banks now came the croak of strange throats, and, overhead, some strange bird circled and uttered shrill cries. He looked up at it and wondered why it frightened him.

Then he thought it was about time for food. Gathering some dry branches, he soon had a fire. Over the fire he placed his frying-pan. As it warmed, he sliced a dozen strips from the side of bacon. As he threw the slices into the pan, they sizzled and browned and smelled—like home!

He placed the frying-pan on the ground. Picking up the bacon slice by slice in his fingers he devoured it, with crackers as a side dish and cool spring water for wine.

It was a rough meal—the first, indeed, that he had ever cooked. But what mattered that, when the price of a railroad or two lay at his feet?

In a short time it was pitch-dark. The prairie wind was blowing up colder. Likewise, it was blowing with more force. It is a wonderful wind, that wind of the northwestern plains. When it does blow, it has all the force of a northern Titan sweeping the world. There is no obstacle in its path — nothing to block the mighty momentum that it gains as the night comes on.

It blew right into the opening of Larry's primeval home. So great was its velocity, nurtured in the northern Canadian prairies, and increasing in volume as it came on toward the south, that it took Larry's side of bacon and his frying-pan and other objects of primeval art and swept them up through the roofless habitat into the great unknown.

Such slight and simple commodities as his crackers and his Oolong tea were as the leaves of yester year in its path. He drew himself into the further corner of the abode. With his legs close together, his muscles drawn taut, and both hands holding his hat down over his tightly closed eyes, he wondered if he hadn't struck the only and original cave of the winds.

"This is a shine dump," said Larry.

He jammed his hat down tight, for his arms were getting numb. This change lasted only the faintest fraction of a second. The very instant that he dropped his hands to his side, he felt the wind getting under his hat, and he slammed his hands on it with hammerlike velocity.

Then he removed his hat and placed it between his knees. That gave his arms a rest. He didn't mind the breezes doing a lo-the-poor-Indian stunt with his locks, although he felt the cold pierce his scalp with none too tender touches.

He thought that he would light his pipe and try to smoke. His attempt to fill the bowl in that wind was a farce. In the crass darkness, he could not tell which was pipe and which was pouch; and ere he knew it, the fine-cut was flying up into his face and eyes.

Believing that he had the bowl of the pipe filled, he turned his face to the wall of his abode and brought his matches from his pocket. The first one that he struck went out; so did the second; so did the third; so did the fourth—and so did the fourteenth.

At the end of this score, he decided that smoking was a luxury that he could not afford—matches were too scarce. But he resolved to have one more try. He crouched down—down in the corner of the abode—he drew his coat over his head and doubled himself up into every conceivable posture that would keep the howling wind from his pipe.

Then he took out another match. With the caution of a surgeon cutting through a vein, he struck it on his leg. It flickered and flamed up. With equal caution he thrust it into the bowl of his pipe, and puffed. None of the old, familiar flavor permeated his palate. He simply drew in air. The tobacco that he had put in his pipe—if, indeed, he had really done so—had been carried away by the wind

"This is a shine dump," said Larry.

He replaced his hat and jammed it tight on his head. Bracing his back against the back wall of his apartment, he sat down, drawing his knees close to his chin. He clasped his hands about his knees, and huddled himself closer and closer together.

He thought that he would be comfortable in this position. To give him credit, he looked at it philosophically. It was only a matter of passing the night. To be sure, he had been a trifle foolish in leaving Fifty Hole that day without knowing more about his destination, but in the morning he would return to Fifty Hole and arrange for the proper covering to give him shelter until he had dug sufficient from the mountain of gold to satisfy his cravings.

Compounds and cross-bars, but it was cold! Colder, indeed, than he had ever felt even in that northern territory of the United States where he had lived since boyhood.

He felt his hands getting more numb and still more numb. He removed them from about his knees and thrust them into his pockets. Ah, that felt good! That was—

Presto! His hat blew off! It was lifted from his head with such marvelous suddenness that it seemed as if some magic wand, not the wind, were responsible for its departure.

"This is a shine dump," said Larry.

He took his handkerchief from his pocket and tied it under his chin. That, at least, would protect his head from the terrible cold. Then he huddled up closer and closed his eyes. Perhaps he might fall asleep. Perhaps the guarding Providence would temper the wind to his shorn and unsheltered seclusion, and let him have a little peace.

He closed his eyes. He closed them so tightly that he clenched his teeth instinctively—and there he sat, and still sat, wondering just how many hours still remained until the dawn. In truth, he had been there but an hour since darkness. It seemed like an eternity.

Finally there came a lull in the wind. Larry knew this because the seemingly incessant and unmodulating noise that it made as it coursed through the trees and over the wastes had somewhat abated.

Inside his primeval abode there was more quiet. Outside, the wind seemed to be taking a more spasmodic velocity. Every little while it would cause a terrific rustling among the trees, and then it would die away as if intent on spending itself with brag and bluster.

"That was some blow," said Larry.

He stretched himself out on the hard floor. With one arm for a pillow, he was ready for rest. His bones ached, and his brain buzzed with the night noises that would not cease, but he began to doze.

Sleep is not recreation; it is re-creation. If ever a man needed to be re-created, Larry did that night. Sleep came to him and wound him in her tender, satisfying arms.

Some moments passed.

Touched by the peculiar instinct that presages fear, he awoke. He sat straight up, with every faculty alert. It was still as dark as Stygian desolation; but it was calmer, and there was only the faintest breeze astir.

Faint though it was, it brought to his nostrils the most peculiar odor that ever greeted his sense of smell. It reminded him of the animal tent of a circus. He sniffed—and then he sniffed some more.

There was a rustling on the gravel outside—a rustling as if some animal were passing to and fro.

Larry's heart-beats were as audible as the regular striking of a clock. His breath came in short gasps. He could feel his face quiver with fear.

Suddenly, as if flashed from a cannon, two green eyes appeared at the opening of the abode.

Larry surmised that they were eyes, for they moved now and then; and, also, the thing or beast or demon was panting as a dog will pant when out of breath.

At first he thought that it was a dog; but when it suddenly filled the night with the most raucous combination of half bark and half yelp, Larry concluded that it wasn't. Evidently tired of this mode of noise-making, it barked with slow, guttural, soul-piercing profundity, and wound up with a wail so dismal that it smote Larry to the core.

A coyote had scented him out—but it might have been a polar bear or a mountain-lion or a Baltimore oriole, so far as he knew.

Brushing his hand over the ground, he encountered a stone. He raised his arm, and let it fly directly at the glowing eyes. Whatever accomplishments Larry may have lacked, he was a game lad.

He realized that his adversary had him cornered, and he was ready to show fight. The stone was evidently well aimed. He heard it strike something with a thud and fall to the ground.

The coyote emitted one dismal cry and fled. It went on its way bellowing and yelping and howling with intermittent pauses; and from the rapidly diminishing volume of its cry, Larry realized that it had lost no time in getting beyond his reach.

"This *is* a shine dump," said Larry.

He arose and stepped outside the abode. The peculiar silence of the dead of night now brooded over all. The wind storm had abated; the trickle of the water was apparent once more; the plaintive boom of a night bird was heard across the distance,

and, overhead, the golden stars glistened in a spray of splendor.

Larry walked to and fro, for the chill was still in the air. So bright was the light of the stars that the entrance to his abode was plainly visible, and, indeed, it was easy to read the time of night on his watch. It was only a little after eleven o'clock.

Oh, the long, lonesome night that stretched before him! How in the name of Heaven was he going to live through it? Would the light of day ever come again?

He sat on the ground. He tied the handkerchief tighter around his throat. He got on his feet, and made his way to the rill of water. He stooped and drank. When he started to rise again his foot slipped, and he would have got a good wetting if he had not broken his fall by catching a twig. As it was, one leg was wet nearly to the knee. It made him feel uncomfortable.

He entered his abode again determined to sleep. Despite the saturated trouser-leg and the bitter cold and the disgruntled thoughts that were whirling through his brain, he again took a recumbent position on the ground and closed his eyes.

In a little while he was fast asleep.

Two or three times he awoke and stretched his numbed body. Then he fell into a deeper sleep, from which he did not awake until the sun was fairly high in the heavens, penetrating his body with its warm and comforting rays.

This felt so very good that he decided to lie there a little longer, and get warmed through and through. The leg that had received the wetting was a trifle stiff, so he thought he would rub it a little.

As he reached down, his hand encountered close to his body as queer an object as ever blocked his sense of touch. It was a warm, leathery, moist, pulsating sort of a thing.

Larry squeezed it—he squeezed it rather hard. It emitted a hissing sound, and Larry felt it spring from his grasp something after the manner of a hawser running through a pulley.

The acrobatic avidity displayed by Larry as he got on his feet could never be told in words. He had just time to see a huge rattlesnake make an "S"-like exit through the entrance of his abode and lose itself in a crevice in the rocks.

Larry was thoroughly frightened. He wondered if he were bitten. It is an old trick of rattlers at night—and he did not know it—to coil up close to a man sleeping on the plains. The warmth of the human body is most pleasing to this poisonous species of reptile. It has never been known to harm a man whose body has afforded a night's shelter. But Larry did not know that.

He drew his lips tightly together, and felt real fear filling his throat. When he could utter a sound again, he simply said:

"This is a shine dump."

One resolution was quickly established in his mind. Gold or no gold—Montezuma or no mazuma—that was no place for a white man to sleep. Money was all very well in its way, but if it could only be mined in the wilderness, at the risk of a reptile's fangs, then a job on the section-gang, at a dollar per, were paradise enow!

At any rate, he would go back to Fifty Hole and get breakfast. There was no great hurry in commencing the actual work of prospecting, and a day or so spent in Fifty Hole would give him a chance to recuperate his peace of mind and get another hat.

He began to retrace his footsteps, and ere nightfall he was again within the sheltering confines of the outpost.

That night, after a good dinner and a drop or two of frontier rum, he wandered into a place that bore the name "Angels' Rest."

Three or four frontier outcasts—trappers who were awaiting the opening of their season—induced him to "sit in" a poker game.

It lasted until well into the night. When Larry arose from the table he was minus his spare cash, his watch, his coat and vest, and his prospector's outfit.

The keeper of the place let him sleep on the dilapidated billiard-table because he hadn't the price of a bed. When he awoke in the morning and sauntered down the only thoroughfare he was good and "sore," and he had a taste in his mouth that was of the "dark brown" variety mixed with a little lemon.

Soon he found himself at the river's bank. There the gladdest sight that had met his eyes since he left home was before him. Tied to her primitive dock was the boat that had conveyed him up the Swamac. Her red-bearded captain was leaning against one of the bitts. Larry could

have punched his smiling, know-it-all countenance—but he needed a friend.

"Back so soon?" asked the captain.

"When do you start for—for home?" was Larry's answer.

"Two o'clock. Going along?"

"If I have to hang on to the rudder."

The skipper smiled grimly. "Cleaned you out in a night, eh?"

"I haven't got a cent—if that's what you want to know," said Larry.

"I'll take you as far as I go," said the skipper. "I'd hate to see a man stranded in these diggin's. Take a hand at leadin' that freight there. That will help pay for your transportation."

Some few nights after, Larry's good mother was startled by a familiar knock at her cottage door. It came just as she was in the midst of telling a few old friends of Larry's departure, and of the possibility of his great riches.

She looked at her guests with startled countenance and rushed to the door. She swung it open and shrieked in dismay. Was it Larry or Larry's ghost? She would have fallen, but he caught her in his arms.

"It's only me, ma," he said, as he kissed her.

Larry soon explained why his coat didn't fit; why he was wearing a cap two sizes too large for him; why he was covered with soot and oil, and looked, generally, as if he had been used to mop up a roundhouse.

"What can I do for you, my boy," said his mother. "Oh, what can I do for you—I'm so glad that you are home!"

"Cook me a plate of ham and eggs, ma," said Larry, "and sit down and watch me eat 'em."

RAPID RAILROAD-BRIDGE REPAIRING.

WHEN the Lackawanna Railroad wanted a new draw in its bridge across the Hackensack River, New Jersey, a trifle in steel 195 feet long and 31 feet wide between centers of trusses, weighing 600 tons, it was built on the river-bank parallel to the stream. When finished it was lifted on jacks, swung around on its pivot at right angles to the river and moved out on two boats 90 feet long, 29 feet wide, and 8 feet deep.

Similar boats were run under the old draw, so that when the tide rose the old was lifted up and floated off, while the new one was floated into its place and lowered to position by the fall of the tide. This operation took ten hours, but it was done on a Sunday, when traffic was at its lowest ebb. The drawbridge across the Passaic was replaced in the same way, April 21, 1901, in twelve hours.

On August 11, 1889, Master Carpenter W. K. Beard, of the Pennsylvania Railroad, with one hundred men, moved Mill Creek bridge, a structure 258 feet long, with trusses 10 feet deep and 25 feet apart, weighing 250 tons, 45 feet sidewise to get it out of the way of the stone arch that was to replace it in twelve minutes by the watch.

The Chicago, Milwaukee and St. Paul planned to rebuild the wooden truss-bridge across Grand River three miles south of Chillicothe, Missouri, when it got around to it. The structure, consisting of a pile-approach 1,070 feet long and four spans of 138 feet each resting on pile piers, was to be rebuilt piecemeal, the trusses first, in 1895, and then the piers were to be replaced with masonry.

But the trusses went bad so suddenly that action had to be taken sooner than was planned. When false work was put up for erecting the iron, the river rose and piled a line of driftwood four to twelve feet deep and extending up stream 700 feet against the bridge, moving the piers so they had to be replaced in a hurry.

After the water had subsided and the drift had been cleared away, the iron trusses were erected on the old wooden piers while the new masonry-piers were being put down from twenty-nine to thirty feet from the old. The four spans of iron, weighing a total of 714,489 pounds, which were placed temporarily on the old piers, were all up November 19, 1895, while the piers were not finished until January 18, 1896.

Girders were put in, reaching from the old piers to the new, on top of which rollers with flanges were placed beneath the bottom chords of the new trusses. Then a six-part block and tackle was fastened to the safety-struts in the end of the first span, a locomotive was hitched to the other end of the tackle, and then, with a conductor and brakeman to pass signals, and bridgemen to watch the tackle and attend to the rollers, that heavy span was dragged endwise thirty feet to its new position as easily as a train-crew could have spotted a car at an elevator: Time, six minutes.

Eight carpenters put in a temporary track as fast as the gap opened up, so that traffic might not be interrupted.

Then, when a suitable interval between trains arrived, span number two was dragged in place. It took nearly seven days of jockeying between trains to get the job done, but the longest time consumed in moving any one of the spans was nineteen minutes.

Preparations added about an hour to the moving time. No passenger-train was delayed, and the longest delay of a freight was ten minutes.

THE DEAD ENGINE.

BY C. G. BYRNE.

Written for "The Railroad Man's Magazine."

JUST back of the door on the playroom floor,
With drivers shining bright,
An engine and train are blocking the main,
And the tracks are lonely to-night.
For every one of the crew has gone
And left it standing there,
On the long iron track that leads away back
To the roundhouse under the chair.

A laughing boy, a mother's joy,
Has answered his Master's call.
And he was the crew, and the manager, too,
The brakeman, conductor, and all.
But nevermore at the parlor door,
Will he whistle the sofa grove
As his train sweeps down and into the town
Behind the kitchen stove.

Still as a mouse, a lonesome house—
No laughing, noisy boy
To cheer our life, our grief and strife,
And fill our hearts with joy.
Your train is here; but you, my dear,
Our engineer of seven,
Will need no cars up in the stars—
The Great White Way of Heaven.

A Frontier Man-Hunt.

BY R. M. WEST.

THE remarkable schemes that will come into a man's head while he is trying to evade his pursuers often puzzle the most scientific minds. These are not the exact words, but they represent the real sentiment of a famous French detective, one of the most noted sleuths of his day.

This story of Jack Malone, a private in the United States army, is based on truth. It is, perhaps, one of the most remarkable stories of a real man-hunt ever recorded. For nearly two weeks, Malone evaded his pursuers who had him hemmed in on all sides. During the hunt, he even talked and walked with some of them.

Running Down an Army Desperado Whose Nimble Body and Keen Brain Were More Than a Match for the Scores of Men Who Were Pursuing Him.

WHEN I first saw Fort Leavenworth, it was not the fine military head quarters it is to-day. My first glimpse was in June, 1866, when the little side-wheeler, New Ella, tied up to the old rickety wharf to unload about three hundred raw recruits, of whom I was one.

We were assigned to the Second Cavalry, U. S. A., then scattered all along the frontier, trying to check the murderous raids of the Indians.

The barracks were little, low-roofed, dingy buildings, not at all suited to shelter the many troops coming in every day. The fort was poorly laid out. To-day, with its fine barracks, hospital buildings, officers' quarters, and the beautiful drives, Fort Leavenworth is a splendid place to see.

Across the Missouri River, as I remember, a dense woods ran close into the bank. There was a bridge in course of construction across the river, its approaches on the Kansas side being just at the southern end of the fort. On the Missouri side there was low marshy land and a place called Slab City, consisting of three houses and a sawmill owned and run by the Reymond brothers.

In those days there was a class of people called river-traders, who depended for their living on the money picked up from people along the banks of the river. Near Fort Leavenworth these traders were very numerous. Their stores were supposed to be stocked with what the men from the fort would be most apt to demand.

The trading buildings were not built on the ground, but were afloat on the river. First there would be a long, wide, flat-bottomed boat, from fifty to seventy feet in length and forty feet wide, then a house built on this, with just place enough left on the ends and sides to work the paddles that kept the boat guided in its drifting down stream.

Nearly all of those trading-boats were called "gunboats." Those tied up near the fort were all loaded with liquors and just enough little knickknacks to make a show. The owners did not dare to tie up on the Kansas side very near the fort, but on the Missouri side they were safe. The traders were desperadoes and outlaws—many of whom had a price on their heads.

One big, ugly fellow named Jack Dimming had what was known as the worst den on the river. When a neighborhood got too hot for him he would let go his lines at night and drop down the river to some other military camp or railroad outfit. Jack Dimming had been as far up stream as Fort Benton, and had been dropping down and down until he was tied up about half a mile below Fort Leavenworth on the Missouri side.

Aboard a "Gunboat."

Dimming had everything on his boat that was calculated to draw a reckless man. There was a dance on board every night. Many a time I have heard the mad music of the horns and fiddles and the laughter of whisky-crazed men and women across the long space of water, while I stood on guard.

Dimming had four or five fellow desperadoes with him, every sheriff knew that he would have to get the drop on Dimming, as he would not be taken alive.

The soldiers at the fort were forbidden to "go over the Rhine" as it was called, but they went just the same. Jack Malone, one of the privates, seemed to be very friendly with Dimming. He was on Dimming's boat every spare moment he could get. By degrees he began to go there on time that was not his. He would neglect roll-call and duty.

First, his commander called him up and talked to him; next, he was punished, but all to no purpose. He would take any risk to get away.

Still, his commanding officer hesitated to be severe. One reason why Malone was so leniently dealt with was the fact that he was a veteran and had been a faithful man. Finally, severe discipline was meted out to him. He was ordered to carry a heavy log on his shoulder four hours on and two off during twenty-four hours.

Malone Makes a Promise.

Even this did not stop him, and he was swung up by the wrists for ten hours. While undergoing this terrible punishment General Buell, the commander of the fort, stopped and asked Malone what he had done to cause such punishment.

It was an old saying in the army that the soldier's answer was, "nothin'," so that a soldier's crime is known as "nothin'."

This time, Jack told the simple truth. He seemed to be sorry as well as ashamed of his conduct, and the general admonished him and secured his promise that he would stay away from the "gunboat."

When Malone made this promise, the general ordered him cut down. He then gave orders that Malone be immediately reported if he disobeyed.

One morning, Private Malone was reported absent and not accounted for. That night, he did not show up at retreat or taps. The next morning, as the men were turning out for reveille, we saw him gliding from tree to tree in his endeavor to gain the ranks, unseen by the first sergeant. He managed to slip into ranks, but as he answered to his name he was told to step to the front.

His captain spoke a few words to him in a low tone, then a guard was called and Malone was sent to the guard-house. He looked more like a fitting subject for the hospital.

Acting under orders from General Buell, the provost sergeant prepared the punishment which was to break him from again visiting Jack Dimming. Malone was stripped and a barrel, with a hole cut in one end just large enough to pass down over his head and rest on his shoulders, was put on him. Then he was marched, under guard, to a large cottonwood-tree.

Left to His Thoughts.

An opening was made in the barrel so his wrists could be tied behind him. This was done with a piece of rope. The rope was thrown over a limb of the tree and pulled until Malone was bent over almost double. It was then made fast to the tree, and Jack Malone was left to his thoughts.

The day was a broiling one in July. An old sugar-barrel had been purposely used. This caused flies and mosquitoes to add to the punishment.

About an hour before first call for dress parade General Buell walked over to the tree.

"Well, Malone, how do you like this kind of duty?" he remarked.

"Not very well, general," he answered.

"Do you think it better to remain in the fort and attend to your duty or to go over to the gunboat?"

"It is better to do my duty, general."

"Hereafter you will do your duty like a man?"

"Yes, general"

"Now, Malone, do you really mean to say that you won't go over to the gunboat again, if I let you down now?"

"*Yes, general, I really mean that I will never go there again.*"

"Well, I will now let you down, but bear in mind that should you again go there, this day's punishment is only a foretaste of what you will get. You will now go to your quarters and get ready for dress parade — and let me see that you *do* attend dress parade."

"Oh, yes, General Buell, you may be sure I will be there."

The guard that was over Malone and heard him say the words, said long afterward that he knew that the suffering prisoner meant no good to General Buell. Malone staggered to his quarters, and not long after the bugle sounded first call for dress parade.

It was a fine evening, and a large crowd had come from the city. A twelve-company fort, with a good band of music, presents quite a lively scene at dress parade. I was out on duty this day, and was sitting with two others in full view of everything that went on.

Just after parade was dismissed and the companies were returning to their barracks, I saw Malone leave the ranks, and, with his gun at a trail, start on a run for headquarters. In the confusion of the breaking up of the parade no attention was paid to the desperate man

It struck me like a flash that he was bent on murder. I kept my eyes on him, but of course could do nothing in the way of stopping him nor giving a warning shout, for I was too far away

He ran like an antelope At one place he was compelled to lower his head in order to break through a group of people. He was about ten yards from General Buell.

Something caused that officer to stop and turn half way around, probably the cocking of Malone's rifle In that moment he must have realized that his time had come His wife and little girl were with him

DIMMING HAD EVERYTHING ON HIS BOAT THAT WAS CALCULATED TO DRAW A RECKLESS MAN

Mrs Buell raised her hands and screamed Malone dropped down, on one knee, took deliberate aim and fired. He jumped to his feet and started on a mad run for the woods

General Buell sank, his hand clasping the bullet in his breast.

"Some one give me a pistol, that I may kill my assassin," he gasped. Those were his last words; he died in a few minutes

Malone had vanished in the grove overlooking the river.

In an instant, people were running in every direction and officers were shouting to the men to arm themselves and give chase. In half an hour, except for the guards, there was hardly a man left in the fort.

The Hunt Begins.

There was little doubt that Malone would be captured at once. Although it was nearly all woods along the bank of the river, it was entirely free of underbrush; yet it was conceded that if Malone gained the Missouri side and got into the dense timber he would be hard to find. For this reason, men were hurried across the river in boats and placed at short distances along the edge of the far bank to head him off if he took that direction; but, strange as it may seem, not a sign of Malone was found.

All night there were torches flaming in the woods; along the railroad was a picket line of watching men; boats were patroling the river; but when daylight came Malone was still at large.

Jack Dimming and his gunboat had disappeared. He had heard the news and very discreetly dropped down the river, although he knew nothing of Malone's deed until told by some of the men giving chase. He did not care, however, to brave the furious people.

It seemed very strange that Malone was able to evade all his pursuers. It was impossible for him to get above the fort, for as soon as he went out of sight in the grove a line of guards was strung all along from the fort to the river bank and another string of men along the main drive between the fort and the city. All this made it pretty sure that he must be still in the long piece of woods which lay between the fort and the city.

Escape Seemed Impossible.

Guards were doubled and the police of neighboring towns were brought into service. It seemed that Malone must be caught, even if he were a rabbit. All night the big posse hunted and all the next day until well into the afternoon—and still Malone was not caught. Every one was worn out, so a strong guard was left at points where the alarm could be given should he be seen.

When the first shock of excitement was over, the officers of the fort held a council with Mrs. Buell. As it became clear that Malone was not to be found at once, as was so confidently expected at first, Mrs. Buell caused notices to be posted that she would give a reward of $500 to the man who captured him.

The next day the State of Kansas offered $1,000 more, and to this the government added still $1,000. In all $2,500 was the reward for any one who would bring Malone in, dead or alive.

The heartbroken wife left for her home with her husband's body. As day after day passed and there seemed no prospect of arresting Malone, the excitement died out; but the tireless search went on.

In the early evening of the ninth day, one of the soldiers named Kelly, while on his way to the fort after a leave of absence, stepped down from the railroad track to get a drink of water from a spring. After drinking, Kelly stretched himself on the grass to rest.

The Whisper in the Bushes.

As he lay there he heard a rustle in the bushes. He did not stand up but lay still, listening. Being off duty, he was unarmed.

For a time all was still. Kelly began to think that his imagination had played him a trick; and he settled down again when in a hoarse whisper he heard—"Kelly."

Startled, yet cool, he answered, "What is it? What do you want?" at the same time jumping to his feet. It struck him that it was Malone, whose voice he knew well. He waited and listened for another call but heard nothing.

Those who knew Malone declared that he would not be taken alive if he had time to fight. All knew him to be well armed and, as every man is supposed to have his cartridge box filled when undergoing inspection on dress parade, he had plenty of ammunition. To accost him unarmed meant sudden death.

The man at the spring, standing there weaponless, felt that he was standing in full sight of the desperate man who, from his place of concealment, could shoot him down should he deem it best for his own safety.

It is not pleasant to be under the trigger—yet Kelly kept his nerve.

Again he called, "Who is it calls me, and what is it you want?"

No doubt Malone was hungry. He had now been in hiding nine days and nights, and it was hardly possible he had eaten much

It is a fact that Malone from his hiding place saw Kelly, and his first impulse was to trust him to name a point of meeting, and have him bring him something to eat; but, after calling, something in Kelly's actions warned the outlaw that the soldier would betray him, and he changed his mind.

Kelly turned to go up the path to the railroad. Malone was anxious to destroy any idea that he may have created in Kelly's mind that he had called to him. Malone did not relish the thought of another close searching party. He ran back while Kelly had his back turned, and when he thought a proper distance separated them, disguised his voice and spoke in broken German, asking "How var vas it yet to dot fort?"

Kelly stopped, looked back, but seeing no one, said: "Mile and a half. Where are you?"

Malone replied, "I vas up near dis road in dem bushes. Don't you see me yet already? Say now, vat you dink? Me could enlist if I go oup dere?"

Kelly now knew that Malone was talking to him, but had the presence of mind to keep it to himself He answered carelessly, "Oh, yes. I do see you now, I think; but your coat looks so much like the brown dirt in the bank behind you I did not see you at first. As to joining the service, if you are the right age, height, and so forth, I guess it will be no trouble to join. Better come along with me; I am going back to the fort now."

As he said this, Kelly scrambled up the steep path to the railroad and down the other side to the river bank. He did this to get out of range of Malone's gun for, as he told it afterward, he could "feel Jack's eyes on him."

Hearing no more of Malone, Kelly made good time to the fort and reported all to his first sergeant. He was then taken to the officer of the day to whom he related his story.

All was excitement again A large squad of men were ordered down on the double

WAS ORDERED TO CARRY A HEAVY LOG ON HIS SHOULDER FOUR HOURS ON AND TWO OFF.

quick to the cottonwood spring, but before they arrived there it was dark.

A big culvert ran under the railroad embankment near the spring, through which ran a small creek that followed a gully from the big hills behind the fort. Along this gully was very thick brush, in which, though it had been pretty well explored before, Malone was possibly lurking.

But there was no Malone. All was dark and silent as ever. All through the night the other guards lay waiting in the wet grass along each side of this gully.

Roach's Silent Comrade.

About one hour before daylight, Sergeant Roach, while patroling near the river was hailed by another guard in a whisper, saying, "Is there any sign of Malone yet?"

"No," he answered.

Then the two kept on down the gully until, coming to a picket post, they were challenged for the countersign. The word was given by the sergeant, the other man standing near enough to catch it

While the sergeant stood talking to the man on picket the stranger muttered some excuse, then kept on down the gully toward the river. As he passed on, the picket said to Roach: "Who is that man?"

"Don't know; too dark to see his face," replied Roach.

"Wasn't he with you? I swear there is something up! Did you notice he did not speak and kept in the background?"

"And the voice!" added Roach. "When he spoke he seemed to smother his words."

"Halt, there! Halt!" they both shouted, but got no answer.

Listening, they could distinctly hear the hurrying footsteps going down the creek.

"If I was not on post here I would try to overtake that man again," said the picket, "for I believe that one minute ago Jack Malone stood right there."

"My God!" exclaimed Roach, "if that is so, I have been walking with him and I helped him to get out of the trap!"

"Go!" interrupted the picket. "Hurry! Maybe you are not too late yet."

Sergeant Roach started to run, plunging along so that when he was challenged by the next picket, and not hearing the call the first time, he was nearly fired on

On coming up and giving the countersign, he panted, "Have you seen any one? Which way did he go?"

Yes," said the other picket, "one of the boys went by a minute ago, heading toward the river."

"Did he give the countersign?"

"Of course he did, or I would not let him pass."

Sergeant Roach hurried on after his late companion, and soon encountered the last picket between himself and the river. Consulting him, Roach found that the mysterious man had been there and gone on to the river.

"What did he say to you?" asked Roach.

"Said he had special orders to take a post on the bank of the river further down toward the city," said the picket.

On a Real Scent.

The mysterious man had told Roach a different story, and there was now no doubt that he was Jack Malone.

The two soldiers went to the railroad track, it being but a short distance from the last picket's post

MALONE DROPPED DOWN ON ONE KNEE, TOOK DELIBERATE AIM, AND FIRED.

As they listened they could hear the patter of feet up the track—the man was running.

So sure were they that it was the assassin that they shouted. Not getting any response, they fired up the track.

This alarmed the searching party in the neighborhood. Many rushed to join Roach and the picket. Roach followed the fleeing man, firing as he went. Others followed, but Malone must have slipped down the dump and hid in the bushes between the railroad and the river and let Sergeant Roach pass him. Once more he had disappeared.

Fires were built all along the bank of the river, the alarm reached the fort and all turned out: the grove was full of men! Day soon dawned, and men with guns could be seen everywhere. The excitement was intense. If a shot was heard, all would rush to the spot. This state of affairs lasted until nine o'clock in the morning.

At this time, the railroad bridge across the Missouri River near the fort was in course of construction. One of the iron piers on the Kansas side near the fort, about two hundred feet from shore, had fallen, and a big bell-boat, the "Submarine No. 14," was anchored in the stream, working on the fallen pier. The crew on this boat were on the cabin deck watching the soldiers on shore. An old fisherman named Williams was sitting in his skiff drifting down the stream watching his lines.

TAPPED HIS SPENCER CARBINE SIGNIFICANTLY AND SHOOK HIS FINGER AT ME

The Voice in the Darkness.

Not being in the man-hunt, I was by the wrecked pier walking along the railroad. I accosted two young men standing near a rowboat that belonged to another wrecking vessel that was anchored in the middle of the river.

These two men, members of the wrecking crew, had brought their captain ashore and were waiting until he should get ready to go aboard again. Seeing that I was a soldier, they hailed me and wanted a description of Malone. They said that three nights running, a man had called to them for some one to come ashore and row him over the river.

I talked with the men for some time and made up my mind that Malone was the man who had been calling to them in the night.

As I looked up the river, I saw the old fellow, Williams, sitting in his fishing boat dropping down with the current, his lines out for fish. It was reported that he had seen Malone drown while trying to swim the river.

I made up my mind to ask him about it. I walked along to get nearer and beckoned to him to pull into the shore. He did not notice me. He seemed to be looking intently down the stream. I looked in the direction of his eyes.

There was Jack Malone.

For a moment I could not believe my eyes. Yet there he was, crouched under a little bush.

When he saw me looking at him, he put his fingers to his lips, then tapped his Spencer carbine significantly and shook his finger at me in a threatening manner.

Being a cavalryman, I have always had great admiration for the Spencer carbine, but just then my respect for the one in Jack Malone's hands was something profound. I was on my way to the city on a twenty-four hour pass, and so I was unarmed.

To make a move toward the desperate man against such odds would have been suicide. I did just what Malone wanted me to—"nothin'."

I looked at Malone and Malone looked at me. As he sat watching me and, also, keeping an eye on old Williams, I noticed that he was dressed differently than when he ran by me out of the fort.

At that time, he wore a dress coat and cap; he now had on a common fatigue blouse and a campaign hat. The brass buttons were gone from the blouse. Across his knees, instead of the long infantry needle-gun with which he had killed General Buell, he had a Spencer carbine

When the old fisherman came down opposite him, Malone spoke in a low, quick voice, telling him to pull in and ferry him over the river. This was part of the old man's business, but he declined on account of his fish lines, saying he would lose them. Malone said:

"I will give you two dollars for the job, and you can easily overtake your fishing lines."

Jumps into the Boat.

The lines were attached to air-tight cans. Malone's offer had the desired effect. Letting go the lines, Williams guided his boat inshore, little knowing the awful character of the passenger he was about to take on board.

As the stern of the skiff grated on the sand, Malone stood up, stretched his cramped legs, stepped in and quickly seated himself in the stern. He ordered the old man to pull for the bell-boat. His idea was this: If he could get the big boat between himself and the shore he was leaving, his chances of escape would be very much better.

Being out of range of the Spencer carbine, I started up the river-bank. As I gained the railroad, I saw the grove full of armed soldiers, some running, others peeking into and under every bush and possible hiding-place.

It was evident that some one besides myself had seen the hunted man and given the alarm. At this moment some one yelled: "There he is! There he is!"

Malone, in full view and range, was crouched up double in the boat. In one hand he held the carbine, with the muzzle within ten inches of the poor old fisherman's heart; with the other, he was steering the boat so as to put the wrecking vessel between him and the men on the bank.

Volley after volley burst out from the bank, but the boat in spite of all went on untouched.

One of the officers yelled, "Silence!" Then he shouted to Williams:

"Old man, that fellow in your boat is Jack Malone who killed General Buell! Turn your skiff inshore! We do not wish to kill you! If you do not, you must take your chances!"

All this time Malone said to the fisherman:

"The first move you make toward the Kansas shore, I will blow the heart out of you!"

The old man was as white as chalk. He was scared so bad that he could hardly hold the oars. He knew it was sure death to disobey the desperate man in the boat, yet at any instant both of them would probably be riddled from the shore. But of the two, Malone's carbine was the most dangerous, so he kept on rowing.

It was pitiful to see that feeble old man tugging at the oars. The agony on his face could be seen plainly by the crew of the bell-boat, whose captain, Joe Snodgrass, ordered to stand out of danger from the shower of bullets.

The water near the skiff was in a bubble from the bullets. Every moment it was expected that the men in the skiff would be shot to pieces, but on they went.

The officers swore at the soldiers, and declared that they were not trying to hit the murderer. They grabbed the muskets from the soldiers' hands, ordered men to stand while they rested the guns on their shoulders for a better aim.

Then they hit the skiff and all around it. They even brought a trickle of blood down the old rower's ghastly face, but the boat went on as if it were armor-clad.

Between Two Fires.

The soldiers were now frantic. Some ran up stream to the boat-house to procure more boats, while others fired faster than ever.

The skiff was now in the swift current made by the anchored bell-boat. It swung down and around the stern of the big craft, then passed behind it, out of sight and range.

With others not in the chase, I scrambled to the top of the pier of the bridge. There I had a complete view of the other side of the river and of the skiff and its two passengers. Malone must have had a charmed life. Although not over two hundred yards away when the firing began, he had succeeded in getting the bell-boat between him and the shore without his being hit.

Malone now allowed the old man to take it more easy. From their movements, it could be seen that he was undecided just which way to steer—up or down the river or make a landing.

Big timber and safety were just ahead; but between him and it were four men, sawmill hands from Slab City.

They had heard the firing; they had been watching the chase and knew their man and the reward on his head. But Malone was well armed, a good shot, cool and desperate. Death was behind him, and the four sawmill hands were nothing to him. Malone had just defied a regiment; but now only three men cared to close with him.

At the Water's Edge.

These men were the two Reymond brothers, who owned the sawmill at Slab City, and one of their employees. They ran to the shore, and then walked along so as to meet Malone when his boat landed.

The fugitive made an attempt to land but some move by the three men made him change his mind, and he steered the boat so as to get a range on them without being in danger of hitting old man Williams.

Even in his own deadly peril, Malone had no wish to see the old man hurt. He sought to keep him out of danger as much as possible, yet he would have killed him instantly himself if it had been necessary to aid his escape. For one moment the frightened fisherman stopped rowing, but Malone raised the carbine and ordered him ahead.

As the boat neared the bank, the Reymonds spoke words of encouragement to Malone which threw him off his guard.

The hunted man stood up to leave the skiff. One of the Reymonds suddenly whipped out a hidden revolver and fired.

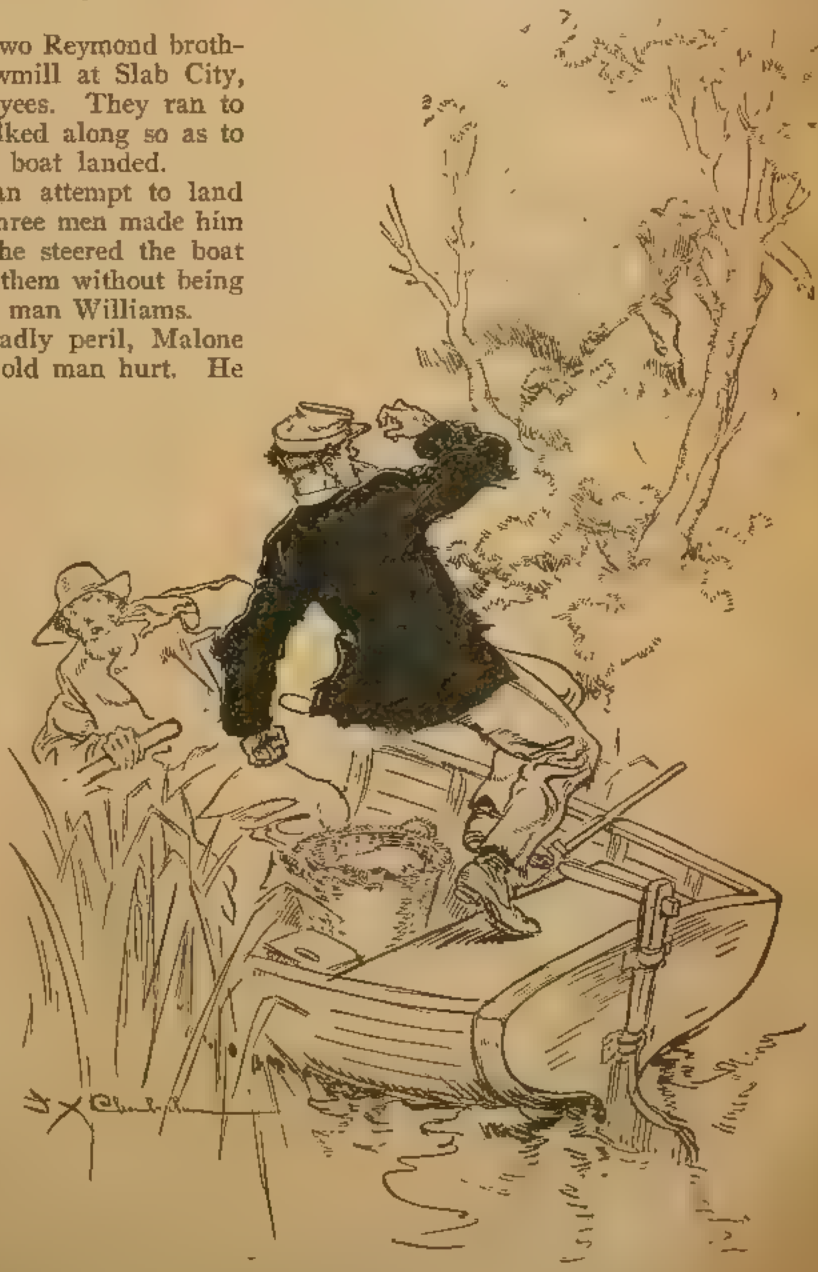
He was not more than fifteen or twenty feet from Malone, and the bullet went true.

Malone swayed unsteadily for several moments, and tried to raise the carbine, but toppled over backward.

The Reymonds fired again, rushed into the water, grabbed the boat and struck the fallen man in the head with a revolver as he made a last attempt to rise.

Malone lay still. They lifted him—one by the feet, the other under the armpits—and carried him onto the bank.

One of the Reymond brothers turned to the old fisherman and shook his hand. Except a bullet tear along the left side of



TRIED TO RAISE THE CARBINE, BUT TOPPLED OVER BACKWARD.

his face, the ugly scar of which he carried to his grave, the exhausted old man was unharmed. The Reymonds then hoisted the limp man on their shoulders and started on a dog-trot up the river-bank until they reached the railroad depot opposite the fort. Then they put their prisoner into a skiff, to avoid all the other boats, and placed him in the hospital.

Jack Malone's Last Hours.

Malone was dumped on the floor, the hospital steward made a hasty examination and found two bullet wounds, one through the left lung and one in the neck. Either would prove fatal. A bad cut on the top of his head showed where the butt of the revolver had landed.

The Reymond brothers hurried over to the adjutant's office for their money.

The post doctor seeing the wounded prisoner on the hospital floor said. "Take this carrion out of my office!"

Malone looked up at the doctor and with a bitter smile said something so low that he was not understood.

They took him to the guard-house. There the dying man was placed on a board bunk and to his old comrades who crowded around him he told some astonishing things.

Without betraying any one he made it clear that all the rumors about his being seen in and around the fort on nights after the tragedy were correct. It was in this way that he changed his gun and clothes. He even had been into his own barrack-room and secured an undershirt and a change of socks from his bunk.

To do this it was not necessary to pass a guard as the posts were not very close together, yet for a man who had a price on his head for killing a United States general, who was being hunted by hundreds of men, to go into the very heart of the fort, not once but three times, and even to his own bunk and out again, seems more than passing strange!

His hiding place during the day was a little hole between two big stones in the woods not over half a mile below the fort. Afterward, we visited it. At first sight, it did not seem possible that a man could conceal himself in so small a place; but the stone had a sharp shelf and Malone, by lying at full length, could slide in so as to be entirely concealed. There he could sleep quite comfortable, while the whole country hunted him.

Wanted a Second Victim.

At two different times, Malone joined in the chase with the others, when by lying still he would have been captured.

But he could not get a boat to cross the river in the night, and he could not swim.

When asked why he did not make greater efforts to get away in the darkness of the night, he answered that he did not care to live with a price on his head. It was gathered from what he said, that his intention was to kill another officer in the fort before being taken, then, to show himself and get killed by resisting arrest, as he would not be taken alive and stand for trial and execution.

Although he did not give the name of the second officer he wanted to kill, it was supposed from his dying talk in the guard-house, that it was the doctor who insulted him while he was lying wounded on the floor and who refused to aid him in his agony under the tree.

He regretted killing General Buell and said if he had been left in the guard-house after the punishment for one night he never would have done it. He claimed that the suffering all that hot July day, with the flies and mosquitoes, made him crazy. At one o'clock in the morning Jack Malone died.

PORTABLE ELECTRIC STATION.

TO send a heavy electric current over a long distance requires a heavy wire; and copper costs money. Power companies therefore distribute current over large areas by transmitting it at high voltage, but low current to points where needed, and then change it to low voltage in what are called "sub-stations," after which it goes out over other wires to customers. An interesting portable sub-station built by the Westinghouse company is now in operation on the lines of the Fort Wayne and Wabash Valley Traction Company, the whole equipment being contained in an all-steel car forty feet long. Whenever current is needed in construction-work, the car is sent out and connection made to a high voltage-line instead of the trolley-wire.—*Popular Electricity.*

THE ALCOHOL ANNIHILATOR.

BY AUGUSTUS WITTFELD.

Carlock Bjones, Detective, Does Some Inventing as Well as Sleuthing, with the Customary Results.

AS chronicler of the remarkable achievements of Carlock Bjones, the talented detective of the Pole-to-Pole Railway, I am conscious that the public will not stand for any flirting with the Goddess of Fiction, neither will it tolerate any wildly improbable tales of impossible adventure.

Consequently, as historian of the great detective, I am compelled to omit many things which I know to be true but which the public, through its ignorance of crime, would stigmatize as fiction-faking, and consign me to the oblivion which seems to be the limbo of the too-truthful or too-accurate biographer.

Rather than offend by overestimating the public's credulity, I will eliminate all seemingly impossible adventures from these chronicles, but shall reserve the right of making them as forceful as is consistent with a reputation for veracity.

The following, which I have compiled from data in my note-book, exhibits the great detective in a new light.

I pushed the button of Carlock's annunciator at one-thirty, and again pushed it impatiently at one-thirty-and-a-quarter. At one-thirty-sixteen Carlock's voice floated down the tube:

"Ah, Watchem, come up."

In my astonishment, I swallowed my impatience, and taking the lift, I was soon in Carlock's apartments. I found him leaning over a table in the center of his chemical laboratory.

"Ah, Watchem," he said, "you are in a hurry. What train are you thinking of taking to the Muttonhead race-track?"

With difficulty I caught my breath, which his sudden question had knocked completely out of me.

"How do you know that I am going to the race-track?" I gasped.

"Dead easy," he replied. "I know you are in a hurry by the way you pushed the button. You are never in a hurry unless you are seeking pleasure. Your only form of pleasure seems to be in picking the horses that can run away with your money. Consequently, you are bound for Muttonhead Bay."

"Marvelous," I commented. "Perhaps you can tell me what horse I have picked."

"With a brain like yours, Watchem," he replied, "you are incapable of picking anything but a loser. Now, if you want to put your money on a winner, I would advise that you invest it in this remarkable discovery I have just made. Take it from me, it's got the hundred-to-one shots looking like the discard in a poker game."

"What is the nature of this great discovery, Carlock?" I asked.

"Watchem," he replied, "you have often scoffed at my assertion that some day I would make a discovery which would astound the scientific world and make the achievements of the master minds of chemistry look like two bits and a nickel. As you pushed the annunciator-button, I had just brought to a successful termination the work on which I have been engaged. In a short time the scientific world will be endeavoring to grasp the full significance of my discovery."

"What have you discovered, Carlock?" I asked.

"Watchem," he replied, "I have discovered a compound which possesses the most remarkable property known, or rather

unknown, to chemistry. I have blazed a way along an unthought path. While the reputed master minds of science have groped for the perfection of illusive ideas, I have pursued my researches along this one line. To you, Watchem, shall belong the proud honor of being the first to know of my discovery.

"Of course, as my biographer, the honor is rightly yours. Nevertheless, it is an honor of which you should be proud. When, in future years, the world pays a tardy debt of recognition to my genius, and you, Watchem, are reaping your reward in the royalties which your 'Chronicles' will bring, the world at large will remember the great Carlock Bjones for his unparalled work in criminology, but the scientific world will remember him and reverence his name for this one great discovery."

"Carlock," I appealed, "can't you stop throwing confetti at yourself sufficiently long to put an end to the suspense I am suffering and tell me what you have discovered?"

"I have discovered," said Carlock impressively, "a compound which possesses the most remarkable attraction or affinity for alcohol."

"Great guns! Carlock," I commented, "you don't have to hunt for anything like that in a chemical laboratory. Why, I just turned down an alcoholic affinity who tried to work me for the medium wherewith to consummate a union of the elements."

"Seriously, Watchem," said Carlock, "this discovery is something phenomenal. Its magnitude overwhelms me. When I think of the possibilities of this discovery in a perfected state, I realize that I have something which will revolutionize life."

"How does the substance work?" I asked, interrupting Carlock's rhapsody in "I major; no flats."

"Let me demonstrate to you," replied Carlock, holding up a wide-mouthed, glass-stoppered bottle. "This jar contains a white powder, as you can see. Place the jar in the same room with a bottle or vessel containing alcohol, either absolute or diluted to the limit, and uncork both bottles. In less time than it takes to tell the alcohol will have entirely disappeared."

"Say, Carlock," I protested, "I'm not from Saint Looey, but, all the same, I'd appreciate an ocular demonstration."

"That is what I propose giving you," he replied.

He took a bottle of alcohol and poured four ounces into a graduate. Replacing the cork in the bottle, he next poured the alcohol into a small earthen dish or capsule. Then he placed the jar containing the powder on the scales and weighed it.

"Exactly two pounds, including the stopper," he announced. "When I remove the stopper from the jar, I shall place it on the scales with the jar so that the weight will remain unchanged. Are you ready for the demonstration?"

"I am," I replied. "Proceed with your mysteries."

"Keep your eye on the alcohol," instructed Carlock, deftly removing the stopper and placing it on the scales.

I watched the alcohol closely. Almost immediately it seemed to grow less in volume. In less than a minute, I was gazing at the empty capsule.

"What has become of it?" I asked. "What's the trick?"

"No trick at all," replied Carlock. "You will note that the weight of the powder and jar remains the same. The powder attracts the alcohol but does not absorb it, otherwise its weight would be increased by four ounces."

"But what has become of it?" I persisted.

"It has been destroyed. Dissipated into the atmosphere," replied Carlock.

"But what's the use?" I asked. "I don't see the utility of a substance which destroys but does not produce. It seems to me that you have a gold-brick on your hands."

"Not necessarily," replied Carlock. "Even as it stands, there is a diversity of uses to which it might be put. Carried to the point of the perfection I have in mind, this substance could be taken into the fields and with appropriate apparatus I could extract the alcohol directly from the growing grain and store it in containers.

"To your unscientific mind this may sound like an idle boast, but you have only to look at the achievements of recent years to realize that seeming impossibilities are being accomplished daily. In a very few years, Carlock Bjones's Alcohol Extractor will be recognized by science and hold an established place in the world.

"And Carlock Bjones will be posing as

a rival to Petroleum V. Rockefeller and trying to devise ways and means to get rid of his ill-gotten gains.

"And you, Watchem, as my biographer, will be investing in a biograph machine to keep up with the pace."

"Say, Carlock," I said, suddenly struck with an idea, "how would you like to try a novel experiment with your great discovery?"

"What kind of experiment?" he asked.

"I'll hunt up that 'souse' I spoke of a while ago," I replied. "If I find him, I'll bring him up here and we will test your wonderful discovery and see whether it will relieve him of his jag. If it is a success you could open up an office and do a big business unloading the victims of conviviality."

"Watchem," said Carlock, "once in a decade or so, that brain of yours does produce an original thought. Go and find the subject and we will make the experiment in the interest of science."

I left Carlock's apartments and had no difficulty locating the "souse," and prevailing on him to accompany me to his doom. When I ushered him into Carlock's apartments his condition was so obvious that the great detective refrained from making any of his deductions.

"What kind of a joint is this?" asked the "souse." "Got anything to drink?"

Carlock opened a cupboard and took from it a bottle of whisky and glasses. He placed them on the table and invited the victim to offer up a sacrifice on the altar of Bacchus. The "souse" filled his glass and sighed because there was no more room for filling. Carlock and I poured out homeopathic doses and we did the tipplers' trio.

"Pretty slick stuff," said the "souse" insinuatingly.

"Yes," said Carlock, placing the alcohol annihilator on the table. "Have another?"

"I don't care if I do," replied the "souse."

He poured himself another drink as Carlock removed the stopper from the jar. By the time he raised the glass to his lips, Carlock's alcohol magnet had taken all the stiffness out of it, and a puzzled expression crossed his face as he gulped it down.

"What kind of a temperance beverage is this you're ringing in on me?" he asked.

"It's out of the same bottle as the other drink," answered Carlock. "Is there anything the matter with it?"

"Is there anything the matter with it?" repeated the "souse." "Why, that stuff has lost its nationality—it's neither Scotch, Irish, Bourbon, nor plain American. I didn't come up here to be made a guy of," and he lapsed into silence.

Carlock and I watched him with interest, awaiting evidence of the efficiency of the Alcohol Annihilator. Presently he began to lose his bloated, alcoholic appearance and his bleary eyes became brighter.

As the alcohol was drawn from his saturated system and brain, he seemed to undergo a metamorphosis. In less than five minutes, the "souse," who had entered rum-soaked, sodden and maudlin, sat before us a perfect specimen of manhood.

"How in the blazes did I get rid of that beautiful bun I was carrying?" he asked.

"I had not noticed that you were carrying any bakery products," said Carlock.

"Sure, I was," he replied. "Maybe you thought it was a load of peaches or that I was full of prunes. The fact is, I was burdened with a most beautiful jag—'j-a-g', jag. Synonyms: souse, pickled, bun, skate. Where is it? Who's got it?"

"My dear fellow," said Carlock, "perhaps you have mislaid or spilled it. If you had it when you entered, you should have it now. Neither Watchem or myself has any use for a second-hand jag, I assure you. If you must persist in drinking, you should study Professor Boozem's 'How to Take Care of a Jag When You Get One.' It is my opinion that you are a novice in the art; a rank amateur."

The ex-tank looked at Carlock as though he half believed him. Then, looking at the jar of Alcohol Annihilator suspiciously, picked up his hat and departed.

"Say, Carlock," I remarked when we were alone, "that was the slickest thing I ever witnessed. You've got the temperance reformers beat to a fringe. The way you robbed that poor inebriate of his rightful jag was a shame. Why don't you use your great discovery for the redemption of such cases and give up the idea of using it for production of alcohol?"

"Watchem," replied Carlock, "you are not a scientist, consequently you cannot appreciate the lure of an idea. To a scientist, the conception of an idea is the birth of a new existence.

"No, Watchem, I cannot renounce what

is to me an alluring proposition. I would be glad to use it as you suggest, but that would necessitate letting the scientific world into my secret and the time is not yet ripe for a move of that kind."

I backed toward the door, knowing that when Carlock waxed monologuistic it was me for the maddening crowd.

"I'll see you in the morning," I called as I dodged out of the door. "I'm off."

I reached Muttonhead race-track in time for the last event. By a juggling of the fates, I won fifty dollars. I had intended putting a fiver on "India Rubber," and when I rushed up to the bookmaker I thought I would save time by talking shorthand, so I asked for a ticket on "Rubber."

The bookie pushed the ticket toward me. Parting with my money, I pocketed the pasteboard and rushed over to see the race.

As I squeezed into a point of vantage, the horses started. I had no trouble in locating "India Rubber" who, to my disgust, was trailing along as if he were made of lead. After the race, the crowd was yelling for "Rubberneck."

I took the ticket from my pocket, intending to destroy all evidence of my foolishness, when I discovered that fate and a blundering bookmaker had done what talent and brains could not accomplish. I had staked my money on "India Rubber," but I held a ticket for "Rubberneck," the winner—a ten-to-one shot.

I cashed in and joyously returned to the Metropolis. The next morning, when I stopped at Carlock's apartments to tell him the good news, I found everything in confusion. The place had been burglarized the night before, and Carlock's man had found him insensible in the laboratory. He had put him to bed, and a doctor found that he was suffering from shock.

He had been struck on the head with some blunt implement.

His wonderful vitality stood him in good stead, and he quickly recovered. Later, when I spoke to him of his great discovery, I was astonished to learn that all recollection of it had faded from his mind, and strange to relate, he showed absolutely no interest in it.

The jar containing the Annihilator had been carried off by the burglars, and it was impossible to reproduce the compound.

As Carlock's biographer, it was up to me to try and discover how and by whom he had been robbed of his wonderful discovery, and knowing the futility of proceeding alone, I tried to enlist Carlock's interest in the matter.

"Watchem," he said, "I may, as you suggest, have discovered a compound which possessed the remarkable properties you claim, but as it has disappeared and all recollection of it has faded from my mind, why should I waste time to recover it?

"The chemical and scientific work in which I indulge is performed with the one end in view: broadening my knowledge and making my mind more acute for the problems of my profession.

"For instance, the Alcohol Annihilator, as you term it, would be of absolutely no assistance in helping me deduce the fact that you are in the stock-market."

"How in the world do you know that?"

"Very simple," answered Carlock. "The elbow of the left sleeve of your coat is worn shiny. That can indicate but one thing; you have been using the telephone a great deal. As your duties do not require that you use the gabby-gab machine, we must search for the cause of such activity.

"Frequent calls on the telephone indicate an anxious mind. Anxiety about anything is due to the fact that there are ever-changing conditions present. This condition we have in the stock-market. The fact that you no longer keep posted on current events, but can name the earnings, dividends, and parboiled value of all railroad and industrial stocks, can indicate but one thing. Furthermore, from the condition of your newspaper, which is covered with pencil memoranda, any one can see that you *figure on margins.*"

"As you can tell these things so easily, Carlock," I commented, "perhaps you can name the stock I am carrying."

"That," replied Carlock, "is a cinch. You bought for a rise. Consequently, you thought you would pick out a sure thing. You are carrying 'Compressed Yeast, common.'"

"Carlock," I commented, "there is no use trying to deceive you. If 'Compressed Yeast' acts as it should I'll buy an automobile."

I walked over to the ticker, which stood in a corner of Carlock's office. Looking at the tape, I was astounded. "Compressed Yeast" had just broken ten points.

"Carlock," I gasped, "for once you are wrong in your deductions. I am *not* on the stock-market."

Grit of the Eagle-Eye.

BY ARNO DOSCH.

WHEN a railroader speaks of sand, he doesn't always mean the kind that an engine carries in her dome back of the smoke-stack. There is another kind of grit than that which the eagle-eye shoots under the wheels to keep them from slipping, and many followers of the iron trail have a supply of it that never gives out, no matter how bad the rails or how steep the grade. The men Mr. Dosch writes about didn't do any sliding. They stuck to what they considered their duty with the grip of sanded steel. Are they heroes? Read about them and judge for yourself. At any rate, you'll admit that their stories are well worth repeating.

Joe Johnson's Last Words.—A Pilot Pick-Up.—How a Train Crew That Wouldn't Quit Met Death in a Dynamite Wreck in Pennsylvania.

"I'M being—"

"Hey, drop that key! Drop it, I say!"

The words snapped out like pistol-shots and an extra punch from the muzzle of the revolver against Joe Johnson's stomach accentuated each one of them.

"Hands off, I tell you! I mean business!"

In the desperado's voice was that cutting note men have who steel themselves to murder. His fingers worked on the trigger in a way that made Johnson wince, but the operator only raised his hand, as if he were warning a child to keep away.

The action was cool and authoritative and his assailant drew back instinctively. It was but a moment, but it gave the operator time to finish his message.

"—robbed."

Then the butt end of the revolver swung down viciously over the back of his neck and his body slumped across the desk in the corner of the little depot at Lofty on the Philadelphia and Reading.

In nearly every other station and in every tower on the division the operators knew that Joe Johnson had telegraphed in the very face of death, and when the last letter was clipped in half each shivered as if he had felt the blow that had fallen.

It was late, and the operator at Quakake, the station next below, had leaned back to read after turning Tom Beckert and the late freight loose all the way to Ringtown. When Johnson's last word startled him into a full realization of what was happening, he jumped to his feet and ran out on the platform. All he saw down the track were the tail lights of the freight.

With that gone there was no other help for an hour. He returned to his instrument. There was only one thing left to do, and that was to catch the freight. He quickly put his message on the wire:

"Operator Girard Manor catch freight and send it back to Lofty to help Johnson."

In the few minutes that followed every operator on the division sat over the soulless, metallic companion of his solitude and waited with limp fingers.

A halting jumble of dots and dashes finally broke the silence of the wire. It came like the voice of a half-conscious man and spelled out the words painfully.

"Robbers gone—jumped Beckert's engine—he doesn't know what's up—feeling better—never mind me—catch robbers."

Girard Manor failed to answer all calls for the next ten minutes and all knew the operator was on the track with his lantern waiting for Beckert.

When the train stopped the two desperadoes were standing in the gangway talking to the engineer like any other two men who might have climbed aboard and made themselves at home. Their eyes were fixed on him keenly, however, and as he caught sight of the operator's lantern, one of them quickly asked: "What's the matter?"

"Nothing," replied Beckert, undisturbed. "Orders, that's all."

"Oh, that's all right," whispered the other, as the speed slackened, "I guess he does that at all stations."

The first robber was satisfied at the explanation, but the suspicions of both were immediately aroused when a paper flashed to the cab window. Beckert, reaching down, was even more surprised than they when he looked into the excited face of the operator who passed the flimsy to him with the one word, "Orders."

Reading the Warning.

Holding the paper close to the gage-lamp, he scanned it carefully. He read:

"Be careful as you read this. Don't look surprised. You're being closely watched. You have aboard two desperadoes who almost killed operator at Lofty."

Four gimlet eyes peered over Beckert's shoulder, but he showed no signs of being disturbed and as one of the robbers stepped quickly toward him, he carelessly twirled the message out of the window.

The gimlet eyes turned sharply toward the vanishing paper and a hand reached out quickly as if to seize it.

"What was that?" asked the huskier of the two, who afterward gave his name as George Snyder.

"Order giving me a clear track."

His voice was dry and cracked and the words rasped out suspiciously, but he deliberately turned his back on the robbers and went about his business. It took nerve to do it, but he did not dare let them see his face. He could hear them whispering even above the roar of the train and he did not know at what minute he would receive a blow on the head.

They passed through Brandonville and Krebs without a stop and approached Ringtown. Beyond that point Beckert had no orders, and yet, if he stopped, he knew the robbers would escape, as they could easily overpower the operator and himself.

A Fight on the Foot-Plate.

As the station hove into view he saw a lantern beside the track and made out the figure of the operator. He felt sure the orders were to go through, so he hardly slackened his speed. He leaned far out of the cab-window, and pulled himself back again holding a paper in his hand. This time he knew the robbers would be ready to read the message as soon as he opened it, but he managed to stoop forward and make out:

"Run for Catawissa. Sheriff waiting."

A rough jerk on the arm brought him to his feet and the outlaw named Snyder scowled down into his face.

"Give that to me," he snarled, but Beckert swung around, and just as the revolver flashed in his face let the message drop from the window.

"Stop the train," roared Snyder.

Beckert glanced quickly to his fireman for help only to discover that he also was looking down the barrel of a revolver. Then, with that same dogged courage that prompted Joe Johnson, he put his hand to the throttle, and instead of obeying the bandit's harsh order, flung it wide open. Knocking up Snyder's arm, he hurled him off his feet to the floor and went down on top of him. As he sprawled across the other man's body the second robber fell over them both, while into the pile leaped the fireman like a football player in a scrimmage.

Into the Trap.

The revolvers fell out of reach, and while the struggle for them was still on the freight tore through Rerick's, Beaver Valley, and on to Mainville, within four miles of Catawissa, without a whistle to announce its passage. Each operator, catching a quick silhouette of the fight as the engine went tearing by, wired on ahead his version of how the combat stood. To them it was more thrilling than any story they had ever read and each report left them in greater suspense than the one before.

At Catawissa, the sheriff and his depu-

ties were strung out along the track ready to make a flying leap for the train if necessary.

When less than a mile from the station Beckert let Snyder slip from his hands. The desperado reached for the throttle and closed it, too wary by this time to chance passing through another town.

He did not know enough to use the air, however, and the engine did not slacken its speed until within a hundred yards of the station. Snyder jumped. He stumbled and rolled over and over, coming to a dead stop only when the sheriff flung his weight upon him. At the same moment two deputies swung aboard and nailed his companion.

Saving a Two-Year-Old.

This is one of the stories they tell on the Reading, and there are many others as good, each with its accompaniment of exciting details. When the gang in the roundhouse begins to tell them off, you are free to believe as much or as little as you please, but for the story of Terrance Cummings, two years old and an obstructer of traffic, any one will vouch.

It happened on a branch of the Jersey Central in eastern Pennsylvania, but it is hard for any one to keep the Reading and the Jersey Central distinctly separated except the auditors of the two companies. The two lines switch back and forth into each other so often, some of the men hardly know which road is paying their wages.

Cal Kimberley, however, was not worrying about this or any other matter as he came twisting down the upper Susquehanna one day about six years ago with a light passenger-train behind. As he rounded a curve, he suddenly saw a little child sitting on the track hardly three hundred feet ahead. It was a down grade and Kimberley knew he could not bring the train to a stop before he struck the baby who sat clapping his hands and playing as unconcernedly as if he were in his own back yard.

A cold chill ran through Kimberley. Throwing on the air quick as a flash, he slipped out of the cab onto the running-board and made his way forward to the pilot. He did not know what he was going to do, but he had some wild notion of leaping out as the speed slackened and seizing the child quickly in his arms.

Even before he reached the pilot, he knew he would not be able to do this and keep ahead of the engine. The train was not slowing down quickly enough.

Then to Cal Kimberley there came a sudden idea. One which added another daring feat to the list of those which had already been accomplished by nervy trainmen.

Twisting one leg about the socket of the signal flag, he swung down head first, grasping the cow-catcher with one hand, while with the other he reached down quickly as the train was about to pass over the baby and lifted him out of danger.

It was not all over, however. The train was still moving and Kimberley, hardly able to hold himself up, encountered a difficulty he had not anticipated. Mr. Terrance Cummings, two years old, was wroth at being disturbed.

He had not asked to be moved, and to be hoisted up in that unexpected manner ruffled his feelings. He squirmed and twisted and kicked until Kimberley thought his arm would break.

"Woo-ow," screamed Terrance with another well-aimed kick, and Kimberley, at the very end of his endurance, suddenly felt his foot slip. As he lurched forward, however, he gave a shove, flung Terrance into the ditch and rolled over beside him.

The Dynamite Wreck.

If you want to get them to talking on the Jersey Central ask about the bad night they gave the town of Ashley, Pennsylvania.

Ashley is a quiet little village and never got badly excited but once, but it hasn't got over that yet. You will hear the old-timer there still saying:

"I was winding the kitchen clock. I remember that because I carried that infernal clock all over town with me the rest of the night and didn't know I had it."

"What was it?" you ask, "an earthquake?"

On the Jersey Central that night has not been forgotten, and plenty of the boys can still tell you about John Rheig, who stuck by his post and lost his life.

Frank McLaughlin was the first to realize what was coming. They had hardly struck the grade below Mauch Chunk, when he felt the slack in the cars and realized that the brakes were not holding. It was ten years ago, before the general use of air, and there was none on his train. All at once it struck McLaughlin what car he

was standing on, and jumping as if he had set his bare feet on a red-hot stove, he gingerly made his way forward, setting brakes as he ran.

Riding with Death.

"Sulfur and fire I don't mind," he said to himself, "but that way of going to perdition is a little too sudden for me."

He dropped down on the tender and made his way into the cab.

"What you doing to us to-night, John?" he asked the engineer.

"We're sliding, that's all I know," answered Rheig, "and we'll never stop her on this grade. Maybe we'll pile up a car or two in the yard at Ashley, but it won't do much harm."

"Won't, eh?" Frank asked. "Do you know what's in that first box car there?"

"No. What?"

"Dynamite."

Then Rheig began to take a new interest in the slack, and every time the couplings pounded he held his breath. In a minute Mike Bird, the rear brakeman, came running over the top with the same message, but McLaughlin, starting back over the tops, waved him off.

They ran for miles, couplings pounding at every jump, and it seemed to Frank McLaughlin as if that dynamite car would be shaken to pieces. Its brakes were the worst of all, and he took the most of the ride with the sound of the jolting boxes of explosive right under his feet.

Down the mountain they came, brakes shrieking, whistles blowing, bells ringing, and the dynamite banging around ready at any instant to blow the whole train into the next county. For a second time it got to be too much for McLaughlin and he came down over that latent volcano white as a sheet.

"Listen to it rattling, John," he cried. "Cut and run for it. We're dead ones if we stay."

"No, you don't," Rheig shouted in answer. "Just leave it to me. I'm getting on to her curves and I'll have her going like a lamb before we hit Ashley. If they only knew down there what we're bringing them, they'd give us the right of way straight into Jersey City."

Though Rheig made light of the situation, he fully realized the danger he was running. The grade dipped just below and in a minute they were plunging down the mountain harder than ever and he thought he heard the dynamite boxes himself. Below there was a short level stretch and then Ashley.

"Get back over there and make for the caboose," he yelled into McLaughlin's ear. The brakeman started back, but not for the caboose.

He was no coward, and he decided he could stick it out if Rheig could.

The lights were out in Ashley, except around the depot. Two engines were slowly churning along the main line unconscious of the imminent catastrophe. Rheig suspected their presence and tried to give warning to the men in their cabs, but the roaring death was on them all in an instant.

What Ashley Saw.

The rest of the story is Ashley's. The town was in its first sleep when Rheig, still struggling to control the runaway train, plunged through the yards and crashed into the engines, knocking them both from the track.

Then came the explosion.

Woof! Boom! Letters the size of this page would not express what that explosion meant to Ashley. The jar that followed shook the whole town out of bed amid a rain of crashing glass as every window went to pieces. Even in Pittston, three miles away, the people made for the street in a panic.

The air was still reverberating from the shock when Ashley's population began to hit the street in whatever costume lay nearest at hand, and as Rheig lay dying in his cab, the last thing he saw was this motley crew of townspeople, streaking it down the street as if their lives depended on it.

They fell to on the wreck just as they were, many of them shoeless, some only in their shirts, but they worked all night as they were. Five engines had been blown to pieces and everything else in range had been knocked askew. They took Rheig to the hospital, and found the bodies of Frank McLaughlin and Mike Bird, who had stood by the brakes to the end, although they might have saved themselves by retreating to the caboose. In the morning the rescuing party had to send for clothes to wear home.

HONK AND HORACE.

BY EMMET F. HARTE.

Fate Hands Our Two Old Friends a Lemon and the Swan Sings at Valhalla.

MANY, varied, and eccentric are the ways in which you get the little, yellow, ovoid fruit with the acrid taste handed to you in this whirligig world of adulterated foodstuffs, adventures, and vicissitudes. Yes, many and varied are the ways.

Life is a whole lot of an odd-come-short; about the time you get your lid firmly settled on your devoted dome and shuffle up to grab the hand-rail of opportunity, preparatory to a long, pleasant trip through the land of easy money, a clinker rolls under the ball of your foot, and it's you for the road-bed, edgewise.

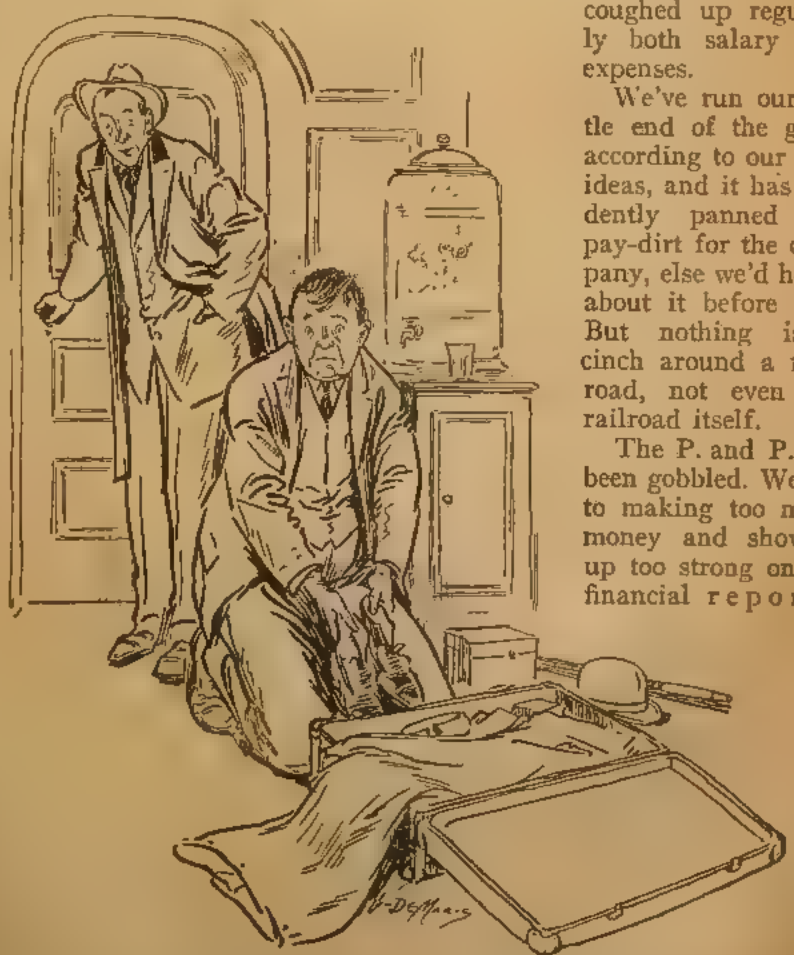
Honk says I am prone to pessimism, indigestion, ingratitude, and foibles every so often. Maybe so. Still, there's worse guys than me that have pie every meal.

What have I done that I can't joy-ride through life a little, and hear the bul-bul sing? I've never robbed no poor widow woman nor killed no kids with a club, and I pay my bills—if I've got the price. What the—but, ah! Beg pardon, I'm sure!

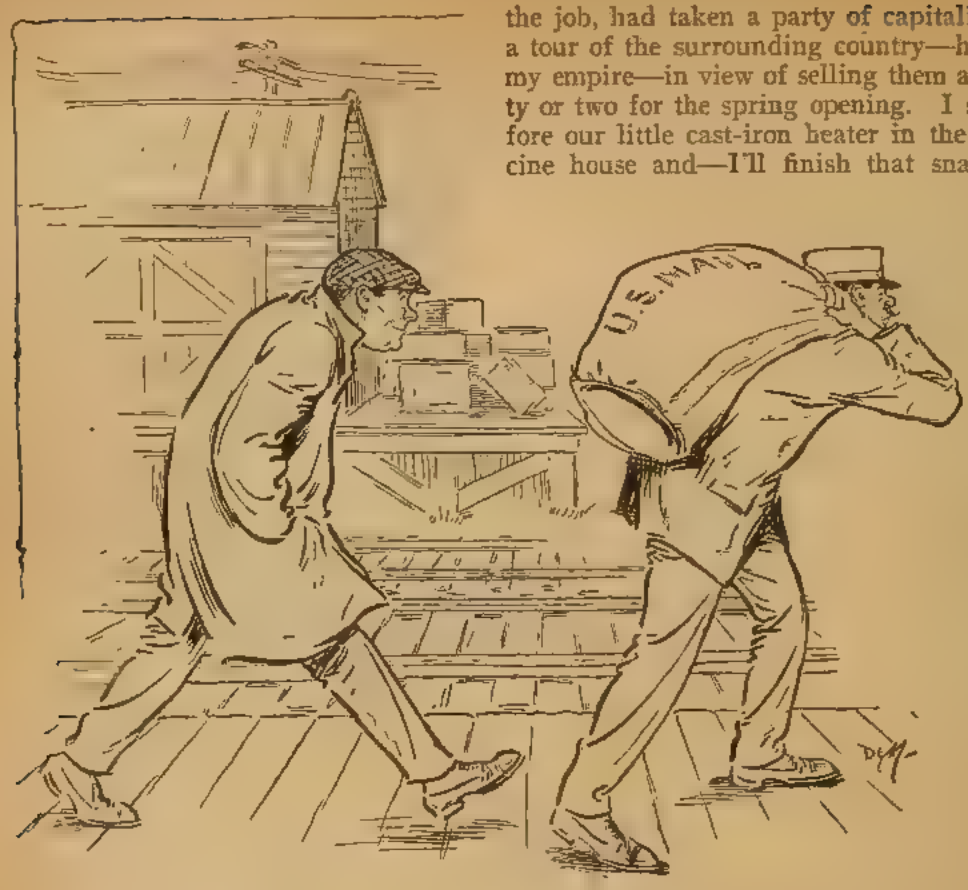
I forgot that you didn't know about it. I'm a bit unstrung yet. Like a fiddle after the dance, as it were. The P. and P. Railroad has treated Honk and me pretty royally these last few years. They've let us do as we please, and coughed up regularly both salary and expenses.

We've run our little end of the game according to our own ideas, and it has evidently panned out pay-dirt for the company, else we'd heard about it before this. But nothing is a cinch around a railroad, not even the railroad itself.

The P. and P. has been gobbled. We got to making too much money and showing up too strong on the financial reports.



"I GOT MY TIME THIS MORNING."



"I'D WATCH THEM WHISK THE SACKS UP FROM THE DEPOT AND FOLLOW, MY FACE ILLUMINED WITH HIGH HOPE."

What! All that traffic profit going into the pockets of the unanointed? Hey-day and tut-tut! It's all right for the ordinary people of this country to have a good time and enjoy themselves, but money is not a matter of sentiment; so the Transcontinental just took a sponge and dabbed it on the map and absorbed the P. and P., same as a bookkeeper removes a gob of ink from his ledger with a new blotter.

You know what happens when a railroad company changes management. You don't? That fellow over there with the hunted look says he does. All right. They clean house, don't they? You bet me. And the old-timers get theirs, don't they? Some of them, at least. They do.

A snatch of poetry occurs to me when I think about the affair:

"Ah, distinctly I remember, it was on a bleak December."

It was cool weather, even in Valhalla. Honk, devoted soul, always alert and on the job, had taken a party of capitalists on a tour of the surrounding country—his and my empire—in view of selling them a county or two for the spring opening. I sat before our little cast-iron heater in the medicine house and—I'll finish that snatch of poetry now. I might as well do so before I forget it:

"Each separate, dying ember wrought its ghost upon the floor."

I wasn't seeing spooks particularly. I was smoking an old Missouri meerschaum pipe of tender memory, though a bit husky as to throat and given to gutturals, and I was reading a scientific treatise regarding the startling adventures of one Reade and a steam-horse.

All unthoughtful, unsuspecting, and unprepared, I sat in my sock feet, poring over my book, with the phonograph peering over my shoulder and the little brass teakettle purring on the stove. I was comfortable and content. Hark! Our sounder clicks. It is my call. I answer. It is well. I am here. Horatius is at his post.

Glibly come the fretful dots and dashes, a rhythmic stream of crowding symbols. I know that brass-pounder at the other end. He thinks he's a lightning-striker; but—

Heavens! what's this? It was gossip pure and simple, but fraught with meaning.

He said that the P. and P. was defunct. We were dead and didn't know it! At headquarters, everything was shot to pieces! Rumors hissed and whined over the wires, and dire, dismayful forebodings skulked in the shadows! Everything was going to be revolutionized, remodeled, renovated, and reconstructed!

Sweeping and drastic reforms were to be instituted! No more tobacco on duty! Save the whittlings from lead-pencils and use old envelopes for scratch-paper! Retrenchment and economy, from John O'Groat's to Land's End! A new regimé, from cellar to garret!

It didn't take the seventh son of a septemtet to foresee what would happen. I've been present at some of these retrenchment flurries before; so, in place of my rapt contemplation of "the ghosts of dying embers on the floor," I turned my attention to the handwriting on the wall. And I'll say this, my suspense was not long drawn out.

The morning motor brought a bulky package — my package that fortune had handed me. Fourteen mimeographed pages of red tape, rococo, and *'raus mit 'em.*

Cut expenses and hedge was the watchword.

Cultivate a light touch on the telegraph instrument so's not to wear off the varnish.

Be sparing with stationery.

Stationery cost money, and money was scarce. All lead-pencil stubs were to be turned in before new ones would be supplied, and one typewriter ribbon was supposed to last five years.

These were among the general instructions, applicable to all. When it got down to Valhalla specifically—ow!

Deeply as they must have regretted it, Honk had been retained on the pay-roll. In return for that favor he had been appointed a committee of one whose duties would be to do all the work at Valhalla. From porter to passenger-agent, he was to be the whole curdle.

The medicine house would be returned to the shops, repainted, refurbished, and replaced in the service where it belonged. Then followed the incendiary list—the names of those fired.

It was lengthy and exhaustive. It covered the ground thoroughly, and lo! "Ben Adhem's name led all the rest," as a poet who forgot to leave his address once said.

I was fired. The torpedo had been attached to me and exploded. The can tied to me proper. My time was enclosed. They wished me well. If I starved to death, they hoped I'd get off the Transcontinental premises first; not that they didn't like me, but they had other uses for the space.

Of course, it made me sore. It makes anybody sore to have this arson crime committed on their person. But I had quit gnawing the woodwork and settled down to a slow boil when Honk returned. He came in, rubbing his hands and untroubled. His boasted clairvoyant sense hadn't hooked him anything out of the charged air.

It so happens occasionally. They said Napoleon was caught cracking jokes on the morning of Waterloo.

"Well," he said, "I nailed 'em. Four fat rascals, with money and discernment, signed up. They're going to subdivide two thousand acres of land into five and ten-acre tracts, to be sold for five dollars down and fifty cents a week. No interest, no taxes, and water rights included in the purchase price. First excursion second Tuesday in March. What are you doing, Horace?"

"I'm packing up my little traps," I said. "Me for the wildwood. I got my time this morning."

"Wha-at!" he cried. "Show me! I'm from Sedalia! What'd you do? Who canned you? Ptt! Huh! I'll let 'em know who's boss around this dump! Where is he?"

He peered out the window, scowling.

"Keep your vest buttoned," I advised him, "and glance over that. The P. and P. has fallen into the hands of the Philippines."

I pressed the documentary evidence into his trembling clutch. He read the sheets one by one, commenting betimes:

"Thunder! Huh! Fire and pestilence! The deuce—well, I'll be—whoever heard of such—huh? Aw, rats! Rotten! Curse 'em! A million maledictions on 'em! Lemme get to that wire"—the latter, as he finished and threw the sheets under the table.

There was no half-heartedness about the uproar he instigated, either. They were gathering up broken insulators along the right-of-way of the Transcontinental for a week afterward, and they said they hadn't heard such sending at the headquarters office since the night Willie the Wizard had the d. t's. They thought lightning had struck somewhere along the line.

He got answers, too, right away. He got an armload of 'em. The new management told him the exact location of the switch where he was to take the siding and pull his fire. They cited him to a line of back away back and muffle.

They impressed it upon him that he didn't have a word to say, that he was known at headquarters by a number preceded by two ciphers, and that any say-so he might have had formerly in the private powwows and war conferences of the company had been

THEY TOOK THE MEDICINE HOUSE AWAY.

corked up in a sealed tube and flung into the most remote corner of the Sargasso Sea.

They mentioned that the goat industry had been discouraged all along the line lately, and hinted in so many words that when any advice or suggestions as to running the road, emanating from Valhalla or elsewhere, seemed imperative, they would warn him a week or two in advance.

They remembered things to say after they had finished, and reopened the discussion. It was some quarrel—lasted till nearly midnight. Honk came out of it in a cold sweat, clear fizzled out, and all he'd accomplished had been to exhaust himself.

I was still fired.

Supper-time came and went unheeded. Neither of us were hungry. We sat up the rest of the night and talked it over. If the new management of the road didn't toss and tumble on their downy couches, with burning ears, that night, on account of somebody talking mean about 'em, it was through no fault or oversight of ours. We read their titles clear, and wished 'em bad luck to a finish.

"I don't suppose, now, you've got anything in view, have you?" Honk asked, just as the dawn was breaking.

"Not just exactly," I returned. "I guess I'll drift back East. Maybe I can get on the Postal or the Western or a bucket-shop or something. I've a notion to try for a wireless job on some steamer."

"I wouldn't be in any fidget," said Honk. "Stick around here a while. I'll make these people come through as soon as their fever dies down a little. I'd quit myself in the morning if it wasn't for Valhalla going to the dogs just as we've got her on a firm footing."

I waited till his explosion had spent itself and the blue haze had cleared.

"You're right," I said with fervor. "I agree with you. Man's inhumanity to man is the root of all evil, and birds of a feather gather no moss; but I'm no guy to run after 'em and try to lick the mitt that soaked me. I'm as independent as a hog on ice. I'll see 'em in *hoc sic semper* San Jacinto first! I'd hate to think that was the only job there is, anyhow!"

"Ho-hum!" sighed Honk.

"I'll hang around here a day or two," I added. "At least, until I can get an an-

swer to some letters I'll have to write. If I didn't have to make my own living, I'd be glad to stay here forever and watch you work, but I can't do it consistently."

He was either too sad or too sleepy to vouchsafe a fitting reply to this bon mot.

That day I contributed materially to the outgoing mail from Valhalla by launching a couple of dozen missives. I also franked about ninety-seven dollars' (day rate) worth of messages hither and yon. There seemed to be little doing.

One or two said they were sorry they hadn't known about me the week before; there had been a hum-dinger of an opening at So-and-So, etc. But it was filled now, etc.

I had one chance to sub. two weeks in a broker's office at some jerkwater village on the Pumpkin Vine Route at the munificent salary of thirty-five a month. I turned it down arrogantly. Then I went to bed and slept the clock around. A thousand blessings on the man that first invented sleep!

Honk tried to appear frolicsome and kittenish when we foregathered at the festal board that evening, but his quips were off tone. Our old comrade, the phonograph, fell off the table by some mischance, and busted itself wide open most disastrously, so that thereafter its chatter was stilled.

The wintry wind yowled and mourned around the coach, and the windows rattled; it wasn't cold particularly, it didn't get very crimpy in Valhalla, but the wind had a bleak whang to it.

Honk mentioned several wild and incoherent things I might do to achieve fortune and fame without leaving Valhalla, from running a box-ball alley to organizing a trust company.

"Why don't you start a nursery, Horace?" he proposed. "There's a fine opening here. Why, you could clean up a thousand on sweet potato plants this spring. Or open up a pool hall. That would suit you to a t-y-ty—"

That was the haphazard way his mind was warping back and forth, like a barkentine with a broken rudder.

"Why not open up a radium factory?" I returned. "I wouldn't need to make but a couple of pounds or so, and then I could retire and buy North and South America for investments—"

"A mysterious and wonderfully fascinating substance, Horace," he commented vigorously. "You know the black sands along the Pacific Coast are rich in pitch blende—" and so on for an hour or two. Honk was always set on a hair-trigger when it came to a scientific discussion.

Scientific discussions, poetry, grand opera, and sociology are all right to while away time with when you're on your vacation up in the Catskills or cruising in your yacht on the dark blue Mediterranean, but when a hearty eater like me is the next thing to broke, in winter, and knows that nowhere in the world is his name recorded on a pay-roll, he is apt to lose interest in the topic and fall to figuring, abstractedly, on how long it is till the grass gets green again.

"I wonder if I could deadhead it as far as Cleveland, on a pinch?" I said, interrupting Honk in the middle of the compound word, radio-activity. "I've got a brother-in-law there that runs a sausage factory, and he'll give me a job skinning dogs any day I drop in on him."

Honk was too full for utterance.

Within a couple of days I began to get replies to my applications. It is surprising how many different ways there are in the English language by which you can turn a man down and not hurt his feelings. The most favored method, it seems, is placing his application on file.

I have applications on file in nearly every city in Uncle Sam's domain. Nearly all of them are indorsed and annotated so that I am to be given a shot at the first vacancy. Some day I'll be swamped with jobs when seventy-five or a hundred positions mature on the same day.

The flood of mail quit coming after a few days, but I continued to appear regularly at the post-office. I'd watch them whisk the sacks up from the depot and follow, my face illumined with high hope.

Afterward I'd return, drooping, saddened, disconsolate. There was a certain corner where I'd turn into the home-stretch to the medicine house, and there my downcast spirits would revive and I'd look forward brightly to the next mail again.

One thing occurred during this dark and gloomy chapter in our lives which I view in retrospect most tenderly. My resources had shrunk to one solitary, well-thumbed, dog-eared ten dollar bill, which I clung to and refused to spend for even the necessaries of life. It was the last of my summer's wage, and I cherished it.

"Loan me a small chew, old scout," said Honk to me one day.

"I haven't got a derned bit," I confessed for the first time in all history. "I guess I'll have to quit. I haven't got no money to buy any with just now." Honk stifled a sob or a chuckle or something, and turned away without a word. Later that day I found a whole brand-new dime slab in my coat pocket, where he had surreptitiously placed it. It was a thing most affecting.

They took the medicine house away soon afterward. We stood on the platform, shivering in the raw, wintry wind, and watched its familiar lines fade away in the distance. That was the mostest unkindest cut of all—to go Shakespeare one better on superlatives.

That night we slept on cots in the freight-room. It was chilly and uncomfortable. We both caught colds and rheumatism, also neuralgia, catarrh, and influenza. We took quinin and whisky for it—or them. I took the quinin and Honk the whisky.

"I guess I'll have to jimmy on my way," I said that morning. "The Transcontinental people don't know how to treat guests. I'll hit for Kansas City first, I reckon."

Honk begged me to stay on yet a little while longer; he hated to see me go. He said he'd stand good for my board and lodging till spring at the Palazzo or anywhere else I'd select, but I told him I was no moocher, and refused to be shaken.

I might have secured a job clerking in one of Valhalla's enormous retail emporiums, maybe, but a railroad man don't think of things like that till it's too late.

It was a pathetic parting. I stood, with all my earthly belongings in a suit-case, and wrung Honk's hand while the wind whipped my legs with the tail of my last winter's overcoat.

"Write me a card every day till you get settled," he insisted. "And if you need five or ten or twenty-five, wire me. I'll borrow it somewhere for you. And good luck, old boy, good luck!"

"The same to you," I snuffled—I had a bad cold, you know. "Remember the Maine, and don't forget to take your medicine regular. Turpentine and lard on a flannel rag is good for sore throat," I shouted from the steps of the motor-car.

He went inside the station and slammed the door behind him.

At Millardsville I had the good fortune to strike Uncle George Jackson on Number 77. Uncle George would carry me to the outer edge of eternity if every trainmaster in the universe were aboard the same train.

"If I was you," said Uncle George, after working his train and hearing my hard luck story, "if I was you, son, I'd hike for Fort Worth. They tell me it's a coming metropolis. Booming. All kinds of work there, and pay you your own price."

"I'd rather risk K. C. or Omaha," I said, but Uncle George persisted in lauding the Texas village all the way. The last thing he said, after he'd fixed it up for me with the con on the east end, was: "Good-by, son. Don't forget Fort Worth."

Naturally, then, after a fruitless sojourn of a week in the river towns, during which I had spent my ten and pawned my suit-case, and hadn't been able to connect with anything that had the remotest resemblance to a meal ticket, I turned my face toward Uncle George's Mecca.

I dead headed a hundred miles or so down the Frisco, struck a hostile crew, and went on my uppers. Me, that a few short months agone had snorted in the exuberance of my pride, a common Weary Waggles, hitting the rods and feeling within me the gnawing insistence of an impatient hunger.

"What is it?" my faithful stomach kept asking. "Is your throat cut?"

But for a few friendly station-agents, I would have gone into an early decline, so relentlessly does fortune rub it in when once she gets a good man going. And it was a long walk to Fort Worth, I began to believe.

However, I never reached the place after all. One day, at the zenith of my degradation and misery, I drilled into a homespun, catawampus sort of a hamlet far down in the Indian-infested hills of Oklahoma.

The place was called something that sounded like Wakickewa. I've never been able to spell it without the official guide, and it isn't worth troubling about anyhow; let it go Wakickewa. They said it was Cherokee or Blackfoot for "He dies hard, but we've got him."

It was a town of some twenty souls, a mule team, a sad-eyed cow or two, and a drug-store where, for a dollar-fifty, you could buy a bottle of "bitters" that would make you trumpet like an elephant. I'm not addicted to the bitters habit, but the incumbent of the railway station, one Arthur, Arturo, or Artie Birdsall, was.

He was a lonely genius and almost crazed with the solitude of his vigil, so he welcomed me right warmly, and I remained to divert him a while.

To be exact and adhere to the bare facts without rhetorical adornment or fanciful figures of speech, the guy was seeing blue-eyed woggle-worms with yellow pompons on their ears when I arrived, and they were calling him from the despatcher's office with a clamorous insistence that sounded urgent to me.

I took the key with one hand and shooed Arturo away with the other. He was arguing with me at the time with the leg of his office-chair. It seemed that they particularly desired a wayward freight-train held at Wakickewa for fear it couldn't pass the up passenger some miles beyond on the single track, which was all they happened to have along there. And the freight in question was then whistling for our outskirts.

I manipulated the board, *et cetera*, and everything went off without mishap.

Young Birdsall recovered in a few days and was profusely apologetic to the company, but they couldn't see him for the smoke, and the expected happened.

To pad out a short story, and make a serial of it, I got the Wakickewa station. It paid forty-five per—a princely stipend to me at that time. In fact, it was all clear money except twelve dollars for board, as, aside from bitters, there was nothing in the village for which to spend money.

As soon as I was comfortably ensconced—there really wasn't enough work on the job to keep an insomniac awake—I sent a hallo message to Honk, in Valhalla far away.

I expected a reply within the hour, but none came. The day passed without word from him.

I wondered if he hadn't gone from Valhalla, maybe to become, like me, a wanderer up and down the face of the earth, to die at last ignobly and rest in the murky waters of some darkling stream or in an unmarked grave in the northwest corner of some back-number cemetery.

I conjured up all sorts of morbid conjectures about him, having nothing else to do, while a couple of days worried by without news of him, sick, dying, or dead.

That Wakickewa place was a lively burg. Phew! Very few trains bothered to stop at all. All the freight consigned there since the town began could have been loaded in one twenty-four foot car; and nothing at all had ever been shipped out.

The southbound local slowed down and came to a standstill one evening after I'd been there ten days, and they began to dump

THE GUY WAS SEEING BLUE-EYED WOGGLE-WORMS WITH YELLOW POMPONS ON THEIR EARS WHEN I ARRIVED.

IT HAD A SUIT-CASE IN EACH HAND AND A SMILE FROM EAR TO EAR.

a line of trunks and packing-cases out of the baggage-car. I wondered what traveling salesman was so far gone as to alight there by mistake, or if it was a show troupe stranded and looking for a place from which to start on a thousand mile walk back to New York.

At that moment, a familiar form swung from the smoker. It had a suit-case in each hand and a smile from ear to ear.

It was Honk, buoyant, breezy, and blithesome as ever! We fell into each other's arms.

"Howdy!" he said. "Howdy! I came as soon as I heard from you. How's your chewing holding out? This is a punko place, ain't it? But we don't need to worry about that, for I don't think we'll sojourn here any great while.

"I've got a great business on foot. You see, I brought my trunks along to save time. This place looks malarial to me. You're not so fat as you was, are you?"

"How's Valhalla?" I asked.

"Gone to the dogs," he said. "I've quit 'em. The place will be gone back to barbarism inside of a year overrun with weeds and wolves. We got away just in time."

TRAVELING AIR-BRAKE SCHOOL.

THE Lehigh Valley Railroad has recently sent out an air-brake instruction car in which an expert is employed to coach its employees on the subject of air-brakes and answer any questions which they may put to him. It is intended that this migratory school shall keep the men always well informed on this phase of railroading operation, as the car will make periodical trips so that they will have no excuse for getting rusty. The instruction-car is fitted out with all the latest air-brake equipment, both for cars and locomotives, so that the instructor may give practical demonstrations along with his talks. A general bulletin conveys to the employees information as to the time of the car's arrival at points along the line. If this does not result in an attendance sufficiently large, special notifications are sent out. The instruction is for the men in both the transportation and shop departments, since at one time or another they must deal with air-brakes.

The Railroads' Clearing-House for Immigrants.

BY PETER MULLIGAN.

DID you ever try to give traveling directions to a man who could not understand English and whose language you could not speak? If so, you can readily imagine what it means to sell tickets and personally direct to their destinations the hundreds of foreign immigrants who arrive in New York harbor almost daily.

This is the work the immigrant clearing-house has undertaken and which it handles so well that few if any of the bewildered newcomers from abroad ever manage to get lost, strayed, or stolen.

Mr. Mulligan shows us how this organization, which operates with the smoothness of a well-oiled machine, not only protects and guides the immigrants to their homes, but also carefully looks out for the interests of the railroads themselves.

How Steerage Passengers of the Great European Liners Are Collected, Tagged, Apportioned to the Railroads, and Made Ready for the Immigrant Trains.

EIGHT hundred and fifty out of every thousand immigrants that formerly entered New York harbor, stopped in the big city at the gateway of the new world and filtered gradually over America. Within the past few years, however, by the establishment of what is known as the immigrant clearing-house, the situation is reversed.

Eight hundred out of every thousand now never set foot in New York at all. They are distributed by the railroads directly from the ocean steamers to every part of the country.

Each of the great deep sea liners, after its passengers have passed the health officers at Quarantine, docks and discharges its immigrants into the Ellis Island boat that comes alongside. Past the sky-scrapers of lower Manhattan, at which they gaze with wide-eyed wonder and longing, the newcomers are carried to the pinnacled group of red brick buildings that from the bay seem to fringe the Jersey shore.

In single file, with hands and heads cumbered with bags and bundles, with children sticking like burrs to their mothers' skirts, they soon find themselves staggering up the narrow incline pouring into the maw of Ellis Island, the vast registration-room where the morally, the physically, and the financially unfit are rejected.

The Eternal Question.

"Where are you going?" is the question put to each of them who has successfully passed the swift and searching eyes of the inspectors and clerks.

Thereafter, until the immigrant has reached his final destination—whether it is Scranton or San Francisco—that is the question he has to answer over and over

again. It begins when the clerks commence to sort out the groups of thirty into which, by law, the immigrants are divided on the ship's manifest.

Those whose destination is New York, and have fulfilled all the requirements, are allowed to pass without delay to the ferry-boat. The remaining sixty or eighty per cent, bound for other parts of the country, then become the railroads' own, to move quickly, kindly, comfortably, with little or no friction, to their journeys' ends.

The machinery for this work has been simplified until it is now able to handle and carry away thousands of persons a day, without confusion or delay, and at the minimum cost to each railroad.

Only yesterday a confused mass of alien peoples went thronging into Manhattan, unacquainted with customs and language, the prey of all varieties of sharpers. To-day a system sends each just where he wants to go, expeditiously, pleasantly, with his meager funds unimpaired; a separation of individuals that under the old regulation took many weeks and was accompanied by endless complications.

Through long corridors and down flights of stairs, with an inspector at every turn to guide them, the immigrants pass. The railroad department fills a large portion of the lower floor of the huge station. It is divided into two sections; one for the baggage and the other for the immigrants themselves.

Handling a Many-Tongued Host.

Only fifteen per cent of these people, railroad bound, and ten per cent of the entire number of immigrants, are to make their way to New England points. The rest of them are to be transported to the West and South, near and far.

The transporting of these is the business of the immigrant clearing-house. No more ingenious combination of interests has ever been planned. With the precision of an army, the many-tongued hosts are moved forward, their tickets examined, or tickets provided for those who have steamship orders, sorted into great cages of wire netting, like immense aviaries, and then with guides for each party, taken off on barges for the great railway terminals.

A clerical force of not more than a dozen men transact all this railroad work for the nine lines that comprise the immigrant clearing-house. Ten to fifteen inspectors and twenty to fifty baggage handlers, according to the low or high tides of immigration, make up the rest of the cohort.

The railways that compose the immigrant clearing-house are with one exception trunk lines leading westward. Whether a man or a family is to be sent to Trenton, New Jersey, or to Spokane, Washington, it is all the same as a matter of detail.

The nine lines are: the New York Central and Hudson River Railroad, the West Shore, the New York, Ontario and Western, the Erie, the Delaware, Lackawanna and Western, the Central Railroad of New Jersey, the Lehigh Valley, the Pennsylvania, and the Baltimore and Ohio, all of which are members of the Trunk Line Association.

Eager to Visit New York.

It is at the door of the big railway room that the question: "Where are you going?" asked of every immigrant, gains its greatest insistence. It is a broad doorway, but no one passes through without being questioned. Over its threshold files an endless procession from all the nations of the earth.

One interesting circumstance is that no small proportion of these people answer this question with the only English words they know: "New York." Then follows this dialogue, sometimes in Arabic or Finnish, oftener in Italian, Yiddish, German, Magyar, or the Lingua Franca of the Mediterranean littoral:

"Show me your railroad ticket or steamship order.

"This says you are going to Hurley, Wisconsin. Across the room there. Give it to the clerk there and he will give you a ticket."

"But I want to go to New York."

"Are you a citizen of the United States?"

"No. I want to go to New York."

"You are ticketed for Hurley, Wisconsin. You can't go to New York unless you get an order from the chief clerk."

"But I want to stop in New York and see some friends."

"Jimmie," to another railroad inspector, "take this man up-stairs to the chief clerk."

In a few minutes the immigrant is back again. He has been unable to satisfy the chief clerk that an exception should be

made in his case, and that he should be allowed to brave the dangers of New York without some one being responsible for his ultimate safe delivery to the railroad company.

So far as possible it is the object of the railway agent of the clearing-house to send out all the passengers from each individual ship over a single line, irrespective of the route their tickets call for. Suppose immigrants from the Lucania, the Adriatic, and the Kaiser Wilhelm all reached Ellis Island the same day.

The Lucania immigrants might go out over the West Shore, the Adriatic's over the Pennsylvania, and the Kaiser Wilhelm's over the Erie. The object is to apportion the immigrant traffic as equably as possible. On other days the other roads would get their share one after the other, so that by the end of the week or month each road would have received the proportion of the business to which it is entitled.

A Saving for the Railroads.

It takes no little judgment for the clearing-house agent to distribute these people so that each road will be thoroughly satisfied, but the system has been so carefully worked out that there is no difficulty. By cooperation the railroads have brought the cost of this service to a minimum, and instead of each having to maintain a complete equipment at Ellis Island the individual expense for each road is only about $12.50 a day when the tide of immigration is not at its flood.

The preferences of each immigrant is carefully considered. If a man or family have tickets to go west by the Pennsylvania and the train-load from his ship is scheduled to travel by the West Shore, he will invariably be asked if he especially wishes to go by the Pennsylvania, and if he declares that he does that will end the matter and he will be sent by that route without the slightest effort being made to change his desire

There is no iron hand about this railroad routing. The other day a swarthy Magyar approached an inspector appealingly

He had been in the United States before, and spoke English. He explained that a ship friend of his who was ticketed by the Lehigh Valley wanted to go with him by the D. L. and W. instead. Could it be arranged?

"Certainly," replied the inspector. "You can both go by the same line and by any route you wish."

Making Up an Immigrant Train.

The object of all this system of shipping simultaneously as many people as possible by any one line is to enable that road to make up its special immigrant trains.

An immigrant train is not generally sent out with less than a hundred tickets. The few immigrants whose travel preferences do not coincide with the day's schedule are carried on the regular trains of the roads they select.

An immigrant train generally starts from its New Jersey terminal at from six to eight o'clock in the evening. It takes practically all day to sort out the steamer loads of passengers and to transfer their heaps of baggage. The latter is quite a complicated task, and there must be accuracy and despatch to get the barges that ply betweeen Ellis Island and the Jersey shore loaded up at the proper time.

From the railroad room where tickets are sold and orders exchanged, the immigrant passes into the baggage-room to identify his property, and thence into the great room of wire cages, one for each railroad terminal. These cages radiate out from a common center like the spokes of a wheel.

Before the immigrant reaches his designated waiting place, the last before he leaves Ellis Island, he is asked again and again the old question, "Where are you going?" and with the following, also new to his ear:

"Are you hungry? When did you eat last? Do you want to telegraph to any one?"

There is no insistence as to any of these inquiries. The average immigrant, at just this point, is so bewildered that he has generally forgotten all about eating, and may be faint from hunger, but not know it unless he is reminded. Also the matter of telegraphing may have quite slipped his mind.

This is the first of two articles on the handling of immigrants by the railroads. The second, "With the Immigrant Specials," will appear in our April issue.

VANISHING RAILROADERS.

BY JOHN W. SAUNDERS.

The Thousand-and-One Nights' Tales of the Early Days Before the Railroads, When We Had to Fight Indians.

CHAPTER V.

Saving the Life of Boone,

BOONESBOROUGH was one of those forts, or stations, erected by the early settlers of Kentucky to protect themselves and families from the incursions of their savage foes, and was the scene of many a thrilling and soul-stirring incident.

It was erected in April, 1775, by Daniel Boone, and was located on the southern bank of the Kentucky River. It was the first fort built in that region, and its erection excited the fears of the Indians, who were highly incensed at the rapid advancement of the whites into their beautiful hunting grounds, which feeling was still further increased by the British, who had forts north of the Ohio, and offered them bribes for every scalp or prisoner they took.

Such being the incentives, Boonesborough was besieged on several occasions by the Indians in large parties, sometimes assisted by their white allies.

It was the first birthday of American Independence, July 4, 1777. The sun, which was just peering above the eastern horizon, gave token of a brilliant day. The birds had laved themselves in the clear, cold rills, and were commencing their matinal songs.

The gate of the fort opened and two young men came out. They made their way to the adjoining fields to commence their daily toil. They entertained no fear of immediate danger from the proximity of Indians, as it had been the practise to send scouts up and down the river every week to look for Indian "signs."

But a few days before the scouts had been out. They scoured the country on both sides, and no trail or other evidence of the Indians had been seen. Hence these two young men took no precaution against an attack —not even taking their guns with them.

At that very moment a body of the redskins was creeping silently and stealthily through the underbrush of the adjacent forest toward the fort.

Totally unconscious of their peril, the youths went on until they were within about sixty yards of the Indians' covert, when, as they were about commencing their labor, they were fired upon by at least a dozen rifles.

The whole scene passed under the eyes of a young man who, for a few preceding moments, had been leaning upon his rifle, gazing listlessly after the two youths from the gate of the fort, where he was awaiting the laggard steps of two companions who were to go out with him that morning on a hunting excursion.

In an instant how changed was his appearance! With body erect, his nostrils dilated like a war-horse in action, his hands firmly grasping his faithful rifle, and with his eyes fixed on the spot where the smoke was lazily rising in the morning air, he stood, the personification of intense excitement.

The young men in the fields, who had been uninjured by the first fire of the Indians, were now running for life toward the fort. Behind them followed a dozen swarthy warriors, thirsting for their blood and scalps.

They had nearly reached their goal when a shot from the leading Indian, who had

paused to fire, brought down one of them within seventy yards of the gate.

Dropping his rifle, the savage sprang forward with a shout of triumph, and proceeded leisurely to scalp the body. He had presumed too much, however, on the distance between himself and the fort, and paid the penalty of his presumption.

Springing his rifle to his shoulder with a jerk, Simon Kenton—for he it was who had been watching the scene from the gateway—drew a bead upon the redskin, and he tumbled over dead. Calling to his companions of the fort, who were gathering in numbers, he bounded forward in pursuit, regardless of the superior numbers of the enemy.

The Indians, retreating gradually, drew Kenton and his companions into dangerous proximity to a large body of their fellows, who were concealed in the thickness of the adjacent woods.

It must not be supposed that all this had taken place without alarming the inmates of the fort. When, however, Boone and others called out by the sound of the firearms rushed to the gate, nothing was to be seen or heard but the firing in the near-by woods and the bodies of the young man and Indian in the foreground.

Ordering those around him to fellow, Boone started for the scene of conflict, to which he was directed by the increasing reports of rifles.

He found the Indians, as well as Kenton and his companions, treed. The latter might easily have been overwhelmed by numbers, but this was not the object of the savages.

Kenton, observing a warrior aiming his rifle at Boone's party from behind a tree, aimed, fired first, and killed the Indian where he stood.

Boone, turning to cheer on his men, discovered that a body of the enemy had made a reconnaissance between him and the fort, and cut off his retreat.

Quick as thought, he gave his orders, "To the right about! Fire! Charge!"

At them they went, one to ten. It was fearful odds, and the whites suffered accordingly. Out of fourteen, seven were wounded, among whom was Boone himself, whose leg was broken by a ball from the rifle of a stalwart warrior who rushed forward to tomahawk him and secure the scalp, a trophy which would have made him a chief.

He was not destined, however, to attain the much-coveted honor. Kenton, who had just rammed down his last ball, and who was on the retreat, saw the danger of his chief, met and averted it.

There was not a second to lose; the savage was already over him, and the next instant would decide the fate of Kentucky's noblest captain.

With the fury of an enraged tiger, and with the seeming impetus of one of his own bullets, he sprang forward. Not waiting to bring his piece to the shoulder, he thrust it full at the breast of the Indian and discharged it.

The force of the blow and the discharge caused the savage to measure his length in his tracks.

Dropping his rifle, Kenton took his friend and commander in his arms—and he was no light load—and carried him in safety to the fort.

After the gates had been made fast and everything was secure, Boone sent for Kenton, and, taking him by the hand, said: "Well done, Simon! You have behaved yourself like a man; indeed, you are a fine fellow."

This, coming from Boone, who was naturally taciturn and not much given to compliment, was no faint praise. Kenton had well earned it, however, for he had killed three Indians with his own hands and saved the life of his leader.

CHAPTER VI.

The Capture of Kenton.

SOME months later, Kenton, who had remained at Boone's and Logan's stations until idleness became irksome, determined to have another bout with the Indians. For this purpose he combined with Alex Montgomery and George Clark to go on a horse-stealing expedition.

They reached old Chillicothe without meeting with any adventure. There they saw a drove of horses feeding in the rich prairie, of which they secured seven, and started on their return.

On reaching the Ohio River, they found it lashed into a perfect fury by a hurricane, and the horses refused to cross.

Here was an unlooked-for dilemma. It was evening. They felt sure of being pursued, and no time was to be lost. They rode back to the hills, hobbled their ani-

mals, and then retraced their steps to see if they were followed.

The next day, the wind having subsided, they caught their horses, and again endeavored to cross the river, but with the same result. The frightened horses would not take to the water, and they were driven to the alternative of parting with them.

Selecting three of the best, they turned the rest loose, and started for the falls of the Ohio; but avarice whispering that they might lead the others, they returned and endeavored to retake them.

This was by no means an easy task. While busily occupied in their endeavor, they were surprised by a party of mounted Indians, who had followed their trail. The whites were separated. Kenton, hearing a whoop in the direction of his comrades, dismounted, and crept cautiously in the direction of the sound, to discover, if possible, the force of the savages.

Dragging himself forward on his hands and knees, he came suddenly upon several Indians who did not discover him at the moment

Being surrounded, and considering the boldest course the best, he took aim at the foremost Indian, but his gun missed fire.

He was immediately pursued. Taking advantage of some fallen timber, he endeavored to elude his pursuers by dodging them and hiding among the underbrush, where their horses could not follow; but they were too cunning for him, and, dividing their forces, rode along on either side of the timber.

They began to "beat it up"; and as Kenton was emerging at the farther end, he was confronted by one of the savages, who threw himself from his horse and rushed at Kenton with a tomahawk.

Kenton drew back his arm to defend himself with the butt of his gun. As he was about to strike, another stalwart savage seized him in his powerful grasp and prevented the descending blow.

Kenton was a prisoner. He yielded with what grace he could command to superior numbers. While they were binding him, Alex Montgomery made his appearance and fired at one of the Indians, but missed his mark. He was immediately pursued. In a few moments one of the Indians returned, shaking the bloody scalp of his friend in Kenton's face. Clark succeeded in making his escape. Crossing the river, he arrived in safety at Logan's station.

That night the Indians encamped on the banks of the river. In the morning they prepared to return with their unfortunate prisoner. Some little time elapsed ere they succeeded in catching all their horses.

At length, when they did succeed, they determined to torment their captive in return for the trouble he had caused them.

They selected the wildest and most restive horse of the number, and bound Kenton to his back. A rope was first passed round the under jaw of the horse, either end of which was held by an Indian, and, even with this advantage, it required the assistance of others to control the vicious beast.

Kenton was first seated on the animal's back, with his face toward the tail and his feet tied together under the horse. Another rope confined his arms, and went round the horse, drawing the prisoner down upon his back. A third was secured around his neck, and was fastened to the horse's neck, and thence extended longitudinally across his body to the tail of the horse, where it was secured.

In this way he was securely fastened to the frantic animal beyond the possibility of escape. To be certain that he was secure, they fastened another rope to his waist and fastened it to the one which served as a girth. Finally, they fastened a pair of moccasins on his hands to prevent him from defending his face.

During the time they were preparing him for his ride, they taunted him by asking him if he wanted to steal more horses. They danced around him, yelled and screamed, and in every possible manner exhibited their delight at the anticipated suffering of their victim. With yells and "thunder shouts" they turned the savage horse loose. He bounded away in fright. He darted through the woods, rearing and plunging, and inflicting on his tortured rider countless wounds and blows as he dashed against trees and rushed through the tangled brush.

Kenton and the animal were lacerated with thorns and briers. Finally, with wasted strength and trembling limbs, the horse returned to the spot from which he had started.

Kenton was suffering beyond description. He longed for death to release him from his torture. But the Indians were not yet satisfied. They mounted other horses, and drove the animal on which Kenton was bound over a wide range of territory.

When the time came that the infuriated

animal could move no more, and simply dropped in its tracks, the trusty tomahawk ended the white man's misery.

CHAPTER VII.

The Escape of Christopher Miller.

WHEN General Wayne took command of the expedition destined to act against the Indians of the Northwest, he was fully aware of the difficulties which lay in his way, and the almost insurmountable obstacles to be overcome.

The enemy against whom he had to contend pursued a vastly different mode of warfare from that with whom he had recently fought, and vigilance, subtlety, and cunning were of far greater need in the commander of such an expedition than the orthodox skill of a military chief.

It was highly necessary to be constantly upon the alert to prevent surprise. To guard against the machinations of his crafty foe, he organized several corps of spies composed of some of the most efficient and experienced woodsmen and Indian hunters which the frontiers afforded.

The command of these companies was given to officers distinguished for their intrepidity and coolness in danger. Among others who merited and obtained this honor was Captain William Wells, who had been taken prisoner by the Indians while a child and brought up under their tutelage.

He had been engaged in the action with St. Clair, and commanded a select body of the enemy stationed opposite the artillery, and did fearful execution among the men.

Feeling assured, after that event, that the whites would be revenged, and anticipating their ultimate success in the contest, Captain Wells left the Indians and joined Wayne's army.

His knowledge of the country, of the Indian language, and, above all, of their habits and mode of fighting, made him a valuable scout.

Among his men was one by the name of Henry Miller, who likewise had served an apprenticeship with the Indians, but had escaped, leaving his younger brother, Christopher—who refused to fly—in their hands. Captain Wells's men performed many deeds of valor and bravery during the campaign, which raised them high in the estimation of the commander and excited against him the implacable animosity of the Indians.

On one occasion he was directed by Wayne to bring in an Indian prisoner. Selecting a few of his band, he started on his perilous duty.

Cautiously and secretly they entered the Indian country, hoping to surprise a straggling party, but met none. Searching carefully in the neighborhood, they came upon a party of three Indians gathered about a small fire, cooking venison.

They had judiciously selected their camp, having located it on the apex of a small mound cleared of underbrush. It gave them a free and uninterrupted view of the woods around them, thus rendering it difficult to approach without being discovered.

Wells tried to make a clump of trees near the base of the hill. It was a daring move to make for it—but Wells determined to make the attempt.

Calling two officers—Miller and McClellan—the three dismounted. Tying their horses, they commenced to creep on all fours in a zigzag direction, taking advantage of every inequality of ground, every shrub and rock, to shelter and conceal their approach.

In this manner, after much exertion, they reached a fallen tree and for the time were covered by its branches.

Here they arranged their plans. One of the Indians was on his hands and knees blowing the fire; another was seated opposite to him engaged in conversation with the third, who was standing in front of the fire. All appeared to be in the best spirits in anticipation of their meal.

It was arranged that Wells and Miller were to shoot the two on either side of the fire, while McClellan, who was as fleet of foot as a deer, was to charge through the smoke and capture the one in the center ere he had time to recover from his first surprise.

Resting their rifles on the trunk of the tree, they aimed at the hearts of their foes. In a moment, two reports awoke the echoes of the surrounding forest, and McClellan was bounding at his utmost speed toward the camp.

Two of the red-skins fell dead, while the third, discovering the rapid approach of the intrepid soldier, dropped his rifle and fled toward the river. At the point where he approached it the banks were twenty feet in height.

McClellan was at his heels, however, followed by the others of the party. There was no opportunity to double, and the In-

dian was forced to leap off into the water below. He stuck fast in the mud, floundering and trying to get out.

McClellan, discovering his situation, sprang upon him, threatening him with instant death unless he surrendered.

The rest of the party appearing on the bank above, the Indian found his escape hopeless, and yielded himself a prisoner. After considerable exertion Wells and Miller managed to drag McClellan and the Indian out of the mire.

The Indian proved sulky, and refused to speak. In washing the mud off him, they discovered that he was a white man.

The captive refused to utter a word. Miller, thinking it might be his brother whom he had left among the Indians, rode up alongside him and called him by his Indian name.

The effect was instantaneous. The man started, turned toward his brother and in the Indian tongue eagerly demanded how he came to know his name.

Miller easily explained the mystery, and the brothers were locked in each other's arms the next moment.

The prisoner was Christopher Miller, who, by one of those providential occurrences by which the white man seems to be protected from danger, while the red man is fated to extinction, had escaped instant death at the hands of his own brother. Had his situation in camp been different; had he been on either side of the fire, instead of in the center of the group, his death would have been inevitable.

After scalping the two dead Indians, the party returned to headquarters with their prisoner. He was ordered to the guardhouse by Wayne, who interrogated him in regard to the intentions of the Indians. He remained for some time sulky and reserved, notwithstanding the efforts of Captain Wells and his brother to induce him to abandon the Indians and return to civilized life. On being released unconditionally, however, he agreed. Joining Wells's company, he served faithfully during the rest of the campaign.

CHAPTER VIII.

A Fist Fight in Old Kentuck.

JOE LOGSTON was one of that class of "half-horse, half-alligator Kentuckians," who could, to use his own words, "out-run, out-hop, out-jump, throw down, drag out, and whip any man in the country.

Joe was a powerful fellow, six feet three in his stockings, and proportionately stout and muscular, with a handsome good-natured face and a fist like a Janney coupler.

Fear he knew not. Fighting was his pastime, particularly if his scalp was the prize for which he fought.

On one occasion he was mounted on his own favorite pony, which was leisurely picking its way along the trail, with its head down. Joe was enjoying a feast of wild grapes which he picked as he came along.

Neither dreamed of danger until the crack of two rifles on either side of the path killed one and wounded the other.

One ball struck Joe, grazing the skin above his breast bone. The other pierced his horse's flank. In an instant, Joe was on his feet, grasping his rifle—he had instinctively seized it as he slipped to the ground—and looking for his foe.

He might easily have escaped by running, as the guns of the Indians were empty, and they could not pretend to compete with him in speed. But Joe was not one of that sort. He boasted that he had never left a battlefield without making his mark, and he was not going to begin now.

One of the savages sprang into the path and made at him, but finding his opponent prepared for him, he sought refuge in a tree.

Joe, knowing there were two of the Indians, looked earnestly about him for the other, and soon discovered him between a couple of saplings engaged in reloading his gun.

The trees were scarcely large enough to shield him. His back was partly exposed. Joe, quick as thought, drew a bead, fired, and struck him.

Now that his rifle was empty, the big Indian who had first made his appearance rushed forward, feeling sure of his prey, and rejoicing in the anticipated possession of Joe's scalp

Joe was not going to lose the natural covering of his head without a struggle. He calmly awaited the savage, with his rifle clubbed and his feet braced for a powerful blow. Perceiving this, his foe halted ten paces, and with all the vengeful force of a vigorous arm, threw his tomahawk full at Joe's face.

With the rapidity of lightning it whirled through the air, but, Joe, equally as quick

in his movements, dodged it, suffering only a slight cut on his left shoulder as it passed.

Then he rushed in. The Indian darted into the bushes, and successfully dodged the blows made at his head by the now enraged hunter, who getting madder and madder at the failure of his successive efforts, gathered all his strength for a final blow.

This the cunning savage dodged as before, and the rifle, which by this time had become reduced to the simple barrel, struck a tree and flew out of Joe's hand into the bushes ten feet away.

The Indian sprang to his feet and confronted Joe. Empty handed, they stood for a moment measuring each the other's strength.

It was but for a moment, for the blood was flowing freely from the wound in Joe's breast. The other, thinking him more seriously wounded than he really was, and wishing to take advantage of his weakness, closed with him, intending to throw him.

He reckoned, however, without his host, for in less time than it takes to tell it, he found himself at full length on his back with Joe on top.

Slipping from under with the agility of an eel, the Indian was soon free. They were both on their feet again—and again closed. This time the savage was more wary, but the same result followed, and he was again beneath his opponent.

Having the advantage of Joe in being naked to the waist and oiled from head to foot, he could slip from the grasp of the hunter and resume his feet with wonderful alacrity. Six different times was he thrown and as many times did he regain his feet.

Finally, their struggles and contortions brought them to the open path, and Joe concluded to change his tactics. He was becoming weaker from loss of blood, while, on the other hand, the savage seemed to lose none of his strength from his many falls.

Closing again in a close hug, they fell as before; but this time instead of endeavoring to keep his antagonist down, Joe sprang quickly to his feet, and as the Indian came up he dealt him a blow with his clenched fist between the eyes which felled him. Then Joe threw himself with all his might on the Indian's body.

This was repeated every time the Indian rose. It soon began to tell with fearful effect upon his body as well as his face, for Joe was no lightweight. At every succeding fall, the Indian came up weaker and seemed disposed to retreat. This Joe decidedly objected to, and dealt his blows more rapidly, until the savage lay apparently insensible at his feet.

Falling upon him, Joe grasped the Indian's throat with a grip like a vise, intending to strangle him. He soon found, however, that the savage was playing possum. The Indian was up to something, the purport of which Joe could not immediately guess.

Watching with the keen eye of a lynx, Joe discovered that the Indian was trying to disengage his knife which was in his belt. The handle, however, was so short that it slipped down beyond reach, and he was working it up by pressing on the point. Joe watched the movement with deep interest, and when the Indian had worked it up sufficiently for his purpose, Joe quickly seized it.

With one powerful blow he drove it to the hilt in the Indian's heart.

Springing to his feet, Joe now turned to the other red-skin. He lay still, his back broken by Joe's ball. His gun was loaded and he was trying to raise himself upright to fire it, but every time he brought it to his shoulder he would tumble forward and again renew his struggle. Concluding that he had had enough fighting and knowing that the wounded Indian could not escape, Joe returned to the fort.

Although he presented an awful sight when he reached there—his clothes being torn nearly from his body, which was covered with blood and dirt from his head to his feet—yet his story was scarcely believed by many of his comrades. They thought it one of Joe's "big" stories.

"Go and satisfy yourselves," he said

A party started for the battle-ground where their suppositions were confirmed. No Indians were to be found, and no evidence of them except Joe's dead horse in the road. On looking carefully about, however, they discovered a trail which led them a little distance into the bushes. There they discovered the body of the big Indian buried under the leaves by the side of a stump. Following on, they found the corpse of the second, with his own knife thrust into his heart and his hand still grasping it, to show that he came to his death by his own hand.

The knife with which Joe had killed the big Indian they found after a long search, thrust into the ground where it had been

forced by the heel of his wounded companion. He must have suffered intense agony while thus endeavoring to hide all traces of the white man's victory.

CHAPTER IX.

Defending the Wagon.

BETWEEN the Blue Ridge and the Western range of the Alleghany Mountains, in the northern part of the State of Virginia, is located Shenandoah County. It derives its name from the beautiful river, one branch of which flows through its entire length, from south to north.

Woodstock, a thriving town was settled previous to the French and Indian War by hardy German yeomanry from Pennsylvania, who were tempted to leave the rugged hills of the Keystone State, by the glowing reports which had reached their ears of the surprising fertility and surpassing beauty of the valley of the Shenandoah.

Gathering their household goods, they reluctantly turned their backs on the homes of their first choice, and took their way through pathless forests to "the promised land."

Arriving at their new home, they selected Woodstock as the nucleus of the settlement, and commenced with a will the laborious task of felling the forest and the erection of their homes.

A stockade fort was erected as a protection against the incursions of predatory bands of Indians. A short time sufficed to place these hardy settlers in circumstances which, if not actually flourishing, were comparatively thrifty. They promised so well that they were led to look forward with hope and anticipation to a long-continued prosperity.

They were a plain, frugal, industrious people, unacquainted with luxuries and only desiring the substantial requisites of the simple life. These were furnished in abundance by the fertile soil of the valley in which they had taken up their abode.

Among others who had been attracted to the beautiful valley by the glowing accounts of its fertility and comparative security, were two heads of families by the names of Sheets and Taylor. The former was of German parentage, the latter of English birth, but having both married American women, and being drawn together by that invisible bond of sympathy which, in a new country, where danger is a common heritage, unites with a stronger tie than that of blood—they were more like one family than two separate households.

Being driven from their homes by the massacre of two of their neighbors' families, they hastily collected a few necessaries, and with their wives and children started in search of a new home. Woodstock was the nearest town, where there was a fort, and toward that place they directed their wagons.

The Taylor family consisted of himself, wife, and three children; that of Sheets numbered but three—himself, wife, and one child. The few articles which the limited room in the wagon and the hurried nature of their departure allowed them to remove, were a chest of drawers, a feather bed, a brass kettle or two, some few culinary articles, and the axes and rifles of the men. These belongings, their horses, and a stout wagon, were all they had saved, yet they were happy that they were alive, and trudged along satisfied if they could but reach a haven of safety from the barbarities which had been inflicted upon their less fortunate neighbors.

The greater portion of their way lay through the forest, where every sound to their affrighted ears gave token of an enemy lurking in their path. The rustling of a leaf, or the sighing wind, awoke their fears and called up their latent courage.

At length they had reached the brow of the hill from which they had a view of the beautiful valley were they hoped to find a haven of rest. They paused for a moment to admire the scene which opened before them—to admire the natural glories of their new home. As they spoke, the deadly rifle of a concealed foe was leveled full at their breasts. A savage red skin, thirsting for their blood, stood within a few feet of them. Hidden by the thick underbrush which grew by the side of the road, five tawny warriors, painted and bedecked with their war feathers, lay crouching like wild beasts ready to spring on their prey!

Just as they started to resume their way and descend the hill toward the settlement, the crack of two rifles and the whizzing of two leaden messengers sent the two men to their death! The aim had been sure, and both Taylor and Sheets fell without a groan, pierced through the heart with the fatal bullet of an unerring aim!

Quick as the flash from a summer cloud

were all the fondly cherished hopes of the wives and children—their safety and future happiness blasted and stricken to earth with the fall of the heads of their families.

No cry was uttered by the bereaved women. Their feelings were too deep for utterance, and there was no time for grief.

They looked around for the foe and for means of defense. Nothing was within reach but the axes of their husbands. These they seized and awaited the onset of the savages. They had not long to wait. Pushing aside the foliage, five stalwart warriors sprung, with a grunt of satisfaction, from the thicket into the road, and made for the wagon to secure their prisoners.

The first to come up seized the son of Mrs. Taylor and tried to drag him from the wagon. The little fellow resisted manfully, looking up into his mother's face as if to implore protection at her hands.

The appeal was not lost. Seizing the ax with both hands and swinging it above her head, she brought it down with all the vengeful force of her arm on the shoulder of the Indian, inflicting a wound which sent him off howling with pain.

Turning to another she served him in a similar manner, while Mrs. Sheets had sent a third back to his lair with a severe blow which severed his fingers.

The other two Indians were wise enough to keep outside the range of their blows, but endeavored to intimidate them by their terrific yells and brandished tomahawks.

Nothing daunted, however, the brave, heroic women maintained their theatening attitude of defense, until wearied of their endeavors and fearing the approach of relief from the garrison of the fort, the two unwounded Indians rushed into the thicket for their rifles.

It was their intention to end the conflict. Taking advantage of this opportunity the women started the horses. The red-skins not daring to pursue them, they reached the fort in safety. A corps was sent out to bring in the dead and scalped bodies of their husbands.

CHAPTER X.

Boyd Before Butler.

AFTER the fearful massacre in the valley of Wyoming, the United States government awoke to the necessity of striking a blow which should teach the Indians and their allies of those early times the bloodthirsty tories, that it was strong to punish such inhuman acts. An army of five thousand men was assembled, in the fall of 1779, to penetrate the Indians' country in western New York and destroy the nest of vipers at Niagara, which was the headquarters from which the Indians drew their supplies and received their rewards.

The expedition was under command of General Sullivan, and embraced, among other corps, a part of Morgan's riflemen.

After a severe battle at Conewawah—now the city of Elmira—Sullivan reached Little Beardstown. There he encountered a deep stream which required bridging before the army could cross.

While waiting there, Lieutenant Boyd, of the rifle corps, a young officer of great promise, was sent across the river with twenty-six men to reconnoiter.

Piloted by a faithful Indian guide, Boyd and his party reached the village, which they found deserted, although it was evident that the Indians had recently been there, for their fires were still burning.

Night was approaching when Boyd had completed his reconnaissance, and he concluded to camp where he was.

In the morning, at the first dawn, some few of his men were on their feet. Approaching the village, they discovered two Indians skulking about. One of these was shot by a man named Murphy, a brave fighter who feared no man even though he endangered his own life.

Suspecting that more Indians might be in the neighborhood, and having performed the duty assigned to him, Boyd commenced to retrace his steps.

He soon discovered that a large body of the enemy, chiefly Indians, were lying in ambush between him and the army. Seeing that his case was a desperate one, and having no other alternative, he determined to cut his way through.

Forming his men in a solid phalanx, and cheering them lustily, he led them to the attack. The first charge was unsuccessful. Singular as it may seem, not a man of the little party was killed, although they were opposed by some five hundred savage warriors and tories.

The second and third attacks were more unfortunate, almost all of the party being killed. Only two or three succeeded in getting through. Boyd and a man named Parker were taken prisoners on the spot

As soon as Boyd found himself in the hands of the bloodthirsty and revengeful tories. he demanded an interview with Brandt. the Indian leader, preferring to throw himself upon Brandt's well-known clemency rather than trust to the generosity or forbearance of his tory colleague.

The chief, being near, presented himself. Boyd, giving a secret-society sign and grasping his hand with the grip of a brother, claimed his protection.

Brandt, belonging to the same society, recognized both, and claimed the two prisoners as his own, promising and assuring them that their lives should be spared.

They would have been, had not Brandt been called away from the camp on duties of importance. Advantage was taken of his absence by Colonel Butler to endeavor to extort from the prisoners, under threat of torture, information regarding General Sullivan's army.

In the council-house of the village there assembled a remarkable group of men Before a table, on which were scattered maps, papers, and writing materials, was seated a short, fleshy, ill-favored man, whose head indicated but few moral or intellectual faculties, and whose features were as expressive as his head.

He was cold and cruel. His dress was the uniform of the Royal Greens, of which regiment he was the colonel. This was Colonel John Butler.

Opposite to him sat an aide-de-camp, prepared to commit to paper the statements of the prisoner. In front of Butler, kneeling upon one knee, was the light, active form of Lieutenant Boyd. His white hunting-shirt brought him out in bold relief from the dusky forms of the savages, two of whom held him in their grasp, while behind him stood the stalwart form of Little Beard, the most vindictive and cruel of the allies of Great Britain.

He was distinguished for a diabolical invention for torturing a prisoner; and whenever this was on the program, he was master of ceremonies.

With one hand twined in the long hair of Boyd's head, he wielded a tomahawk in the other.

The tomahawk was raised to strike the death-blow on the signal from Butler. Behind him stood the other prisoner, Parker, in the hands of a fourth savage. Several warriors and soldiers completed the group.

Colonel Butler lost no time in interrogating the prisoner.

"What is your name?"

"Boyd."

"Your rank?"

"Lieutenant."

"What corps?"

"Morgan's rifle corps."

"What is the number of Sullivan's army?"

"I shall not answer the question."

"Boyd, life is sweet, and you are yet a young man; there is no possibility of your escape, and you have only one alternative; either answer my question immediately or you must die."

"Colonel Butler," replied the intrepid soldier, "I am in your hands; do with me as you see fit. I know your power and your will to put me in the severest torture, but you cannot shake my determination to refuse to answer your questions."

"Your death be upon your own head, then. Take him away."

Parker was questioned in like manner. With equal spirit he refused to answer. He, too, was handed over to the tender mercies of the barbarous savages, who commenced at once their brutal and fearful orgies.

Tying Boyd to a tree, after stripping him of his clothing, they formed a ring about him and commenced their infernal dance over a prisoner at the stake. Every means which artful cunning could invent or hate conceive was brought into play to intimidate the courageous Boyd, but without effect.

They pierced him with their knives; shook their tomahawks in his face; stuck sharp sticks into his flesh, and then threw their hatchets as near to his head and body as they could without killing him. Finding that their endeavors to frighten him were of no effect, and fearing the return of Brandt, they finally cut a hole in his body and drove him around the tree until he dropped dead. He was then beheaded, and his head stuck on a pole beneath a dog's head, which ghastly trophy was left when they retired from the town.

Parker, who had been compelled to witness this scene in anticipation of a similar or worse fate, was simply beheaded, owing to their haste.

His body and Boyd's were found and buried the next day by the army in passing through the town.

(To be continued.)

Ten Thousand Miles by Rail.

BY GILSON WILLETS,
Special Traveling Correspondent of "The Railroad Man's Magazine."

No. 10.—SIDE SHOWS IN THE SHOW-ME STATE.

Adventures of a Hard-Working Gateman—How Shelbyville Found Itself—Saved by Snowballs—Hogan's Eminent Domain—Jim Reach's Love of Baseball—Tim Murphy's Tide of Tears.

SOMEBODY dropped a set of false teeth on the long platform of the Kansas City Union Station, where you walk up and down while waiting for your train.

Gateman Ralph Eldridge was the first to spy the teeth, and he gave them a little kick to the left. Detective Bradley saw them next and gave them a little kick to the right. Matron Everingham saw them next. She daintily kicked them forward. Mr. King, tourist-pilot for the Missouri Pacific, saw them next, and he gave them a swift kick aft.

So there was that vicious set of false teeth roaming at large in the depot enclosure, unrestrained and unmuzzled, a sinister thing lurking in the path of the passers-by, a horrible public menace.

Now it came to pass that before the station-porter overtook that set of menacing false teeth with his broom, it was encountered by an elderly man from Texas.

Gateman Ralph Eldridge noticed the old man, and suspected that he had escaped from a sanatorium, for his right foot was encased in a carpet slipper of many colors, the most conspicuous hues being green, blue, yellow, violet, and crimson.

Eldridge also noticed that the old man hobbled, rather than walked, about the platform.

Then, all of a sudden, Eldridge's ears were assailed by a scream that meant mortal agony. He turned around to behold the carpet-slippered man sitting on the platform with his knee up against his chin trying to extract the false teeth from one of his slippers.

Eldridge rushed up to the sufferer just in time to hear him make these few philosophic remarks:

"What kind of a station management is this, anyway? Hang the man who left his false teeth here to bite a mouthful out of my foot, and me with rheumatism and a thousand miles to travel before I reach my private physician in Texas!"

"I'm sorry, sir," said Eldridge, his voice tremulous with sympathy for the excruciating pain of which he was a witness.

A crowd gathered. Depot Detective Bradley came up and asked the old gentleman his name.

"I'm Henry Wilson, of Texas! I mean to employ a lawyer and bring suit against this company for letting a set of false teeth stick their fangs into this rheumatic foot of mine! It's criminal negligence!"

Matron Everingham ministered deftly to the Texan. Then Pilot King of the Mop piloted the poor bitten man to a bench, where he sat perfectly still till the Rock Island's Golden State Limited came along, picked him up and hauled him out of Missouri.

Two weeks later, Detective Bradley said to Gateman Eldridge confidentially:

"The legal department of the K. C. U.

S. Company is as white as a sheet from fright."

"What's the matter?" gasped Eldridge.

"And you, Ralph, and me, and the matron, and the whole bunch of us here are to be summoned as witnesses."

"What ails you, Bradley?" asked Ralph.

"Remember that gent from Texas that got bit by that false teeth? Well, he's sued. He's sued for damages for criminal negligence on the part of the station employees in allowing false teeth to rove around here unleased and unaccompanied by owner."

Two months later, meaning on or about April 4, 1910, I passed through Kansas City. I, too, paced that long platform while waiting for the Golden State Limited. While I paced, Ralph Eldridge opened his gate and announced to all the world that a Frisco train was about to depart for points in Arkansas.

SHE DAINTILY KICKED THEM FORWARD.

I stood by Eldridge's gate, watching him as he punched holes in tickets. Nearly the last man in Kansas City who seemed to want that Frisco train was one who handed Eldridge a ticket to Springdale.

That man from Springdale looked as if he were made up to play the part of an agriculturist in a drama entitled, "In Truly Rural Arkansas." Instead of passing on with his punched ticket, he stopped and scrutinized Eldridge so minutely that the gateman's face crimsoned as he said:

"Don't block the passage, please."

Having finished his survey, the farmer said:

"Look here, boy, you're altogether too husky to be loafing around a railroad-station. You ought to go to work. Tell you what I'll do for you, boy. I'll give you an order for an ax, and you get it and come down to my farm and set to work cutting down trees on my woodland, and I promise that I'll pay you good wages."

As he spoke, the farmer placed his valise on the platform and seated himself. Then he took out a stub of a pencil and scribbled on a bit of paper.

"There, boy," he said, handing the paper to Eldridge. "I'll expect you." Then he boarded the train.

Eldridge read the scrawl. It was an order on a hardware dealer in St. Louis for one ax to be delivered to bearer and charged to Mr. So-and-So, Springdale, Arkansas.

But Eldridge stuck to his job at the gate.

Three o'clock on the day after Christmas in Shelbyville, Missouri.

James B. Smith was dead. The whole town had turned out for the obsequies, for James B. Smith had been the ablest politician and thriftiest farmer in all Shelby County. All who knew him in life had gathered to hear of the good that would live after him.

Just as the minister reached the point of profoundest solemnity, the shrill whistle of a locomotive pierced the air.

Such an instantaneous pricking up of ears on the part of the population had never before been known in that town. Never before had a locomotive-whistle been heard within the limits of the seat of Shelby County.

The whistling was repeated with an aftermath of wheezing prolonged to the limit of endurance. This second tooting set the blood of the multitude a tingling. Inside the church a general stir ensued. Outside,

a man on the edge of the crowd turned his back on the overflow of mourners and started off with an earnestness of countenance and velocity of gait to see the machine capable of producing that wondrous sound.

That daring deserter from the obsequies was followed by two more men. On the track of the two came twenty. In the wake of the twenty came forty-five and more. The funeral party gradually dispersed until all within and without the church had gone, leaving only the minister and the pall-bearers and the family of the departed.

Those who thus left the bier of James B. Smith did so in the belief that he would have approved, for Mr. Smith had worked overtime to procure a whistle-blast for which Shelbyville had been waiting for three-quarters of a century.

Let us follow the multitude. Behold the citizens now surging rank on rank upon the monster that could whistle like a demon.

What a monster it was! Many a time it had awakened those who snored on Second Avenue, New York City, as it marched on stilts past innumerable chambers comprising the cliff-dwellings that flanked the right-of-way of the Manhattan Elevated Railroad.

Shelbyville's first locomotive at length had arrived. Cal Meldrum, the first locomotive engineer ever to enter Shelbyville strictly on business, leaned from his cab window and shouted:

"It was a great run down from Shelbina, friends.

"We covered the ten miles in twenty-two minutes. You yourselves built this railroad, and should be proud of your achievement."

It was a great moment for Shelbyville, but it was only a moment. There was soon to come, however, a whole day of festivities when the last spike was to be driven and the first passenger-train to be run over the newly constructed line from Shelbyville to Shelbina, where the new railroad would connect with the Chicago, Burlington and Quincy, thus bringing Shelbyville into the zone of the nation's activities!

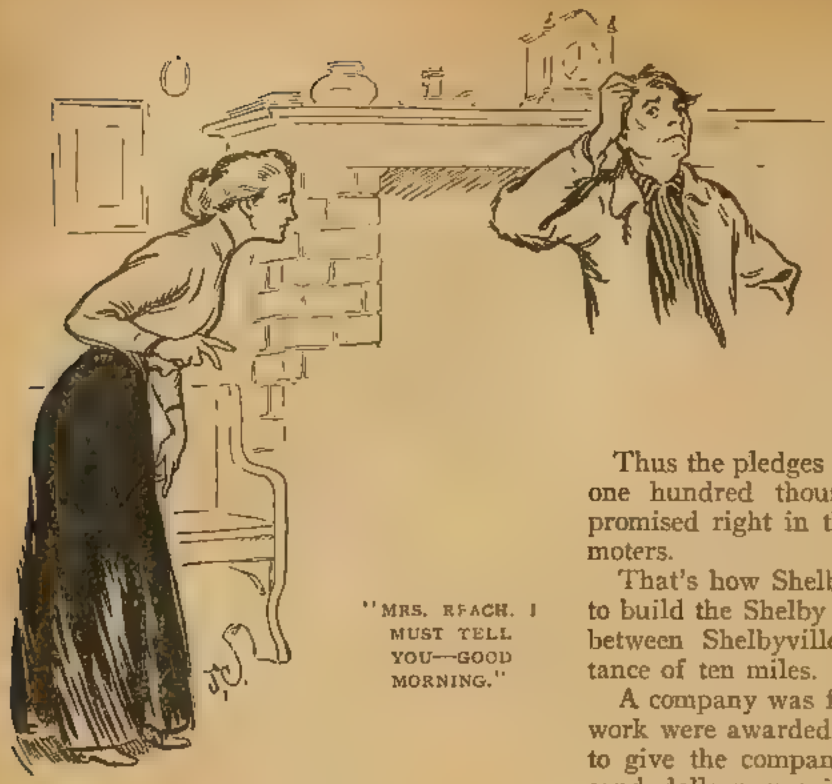
And this is how it all happened.

On a summer's day in 1906 six men came to Shelbyville. They were driving a surrey, and they were large of girth and stature. To the county court-house the six men were led, there to be seated on a platform in full view of Shelbyville in mass-meeting assembled. One of the six strangers began to talk to the meeting.

Those six men, be it known, were promoters. They had come to Shelbyville, to put before the citizens a proposition to build a railroad that would forever lift Shelbyville out of isolation.

The six didn't want a thing from Shelbyville except free ground for station and yards, free right-of-way through the whole county, an advance of five thousand dollars in coin for surveys, free water and light for five years, exemption from town and county taxation for ten years, an advance of ten thousand dollars cash for preliminary construction; and the construction, by the town itself and at the town's expense, of four stations, one roundhouse, and all

"THIS IS THE WEATHER FOR RAILROAD WRECKS, JUDGE."



"MRS. REACH, I MUST TELL YOU—GOOD MORNING."

other adjuncts of a railroad in the way of edifices.

That's about all the promoters wanted.

Silence pervaded the hall of judgment and mercy as the speaker sat down. Maybe Shelbyville was stunned by his modesty. Anyhow, even the chairman of the mass-meeting sat as if overtaken by petrifaction.

Finally, however, a voice from a front seat was heard. Every head turned to behold James B. Smith, richest citizen and ablest politician in Shelbyville.

"Mr. Chairman and gentlemen," Mr. Smith said, "I allow it's the general opinion of this meeting that since we are informed that we ourselves must survey the line, lay the grade and tracks, put up all the buildings and bear all the cost of operating the railroad for some five or ten years—I allow, I repeat, that since this is the case, as defined by the philanthropists from Chicago, we might as well own the railroad ourselves and operate it ourselves. Pursuant to which, of course, I now pledge the sum of ten thousand dollars to start a fund for the construction of the railroad without any help, advice, or interference from any more promoters from Chicago."

The mass-meeting recovered from its trance and greeted Mr. Smith's words with applause so vociferous that the court-house ceiling almost cracked.

"I pledge two thousand!" shouted a farmer at the rear of the hall.

"And I five thousand!" yelled the leading banker of Shelbyville.

"And I will give four thousand!" cried the proprietor of Shelbyville's department-store.

Thus the pledges continued till more than one hundred thousand dollars had been promised right in the faces of the six promoters.

That's how Shelbyville raised the money to build the Shelby County Railroad to run between Shelbyville and Shelbina, a distance of ten miles.

A company was formed, contracts for the work were awarded, and the citizens agreed to give the company a bonus of ten thousand dollars, provided the road was completed by January 1, 1908.

The first locomotive arrived at Shelbyville on the day after Christmas, 1907, though the road was not yet completed. Only four days were left in which to complete the road—and that bonus simply must be earned.

In every place where men were employed work ceased. The men proceeded to the right-of-way of the new Shelby County Railroad. They dug and carted; they laid ties and rails and ballast.

That volunteer industrial army worked like Trojans right up to midnight on the last day of 1907. Then the army went to bed. The Shelby County Railroad was ready to be opened to the public.

On January 1, 1908, the last spike was driven and speeches made by the president and other officers.

After the speeches, the first run was made, the train consisting of the locomotive from the New York elevated system, two real passenger-coaches, some flat cars, coal cars, and everything else that the teakettle could haul at one time.

Before that historical train started, James B. Smith set a patriotic example by paying five dollars for his ticket for the round trip to Shelbina. Every man who could afford it followed suit. Those who couldn't spare

five dollars paid one dollar, for everybody wished to help the new railroad.

As Cal Meldrum pulled the first train into Shelbina he leaned from his cab window and shouted:

"Under the management of the Houck boys we've got the littlest but the best railroad in Missouri."

And James B. Smith, who had started the whole business, and had worked for the Shelby County Railroad like a Jim Hill, was at rest in the cemetery.

This Coach Was a Target.

Snow had fallen the night before. The country around Trenton, Missouri, lay under a blanket of white. In the afternoon the weather turned cruelly cold. Nevertheless, Colonel William Carpenter and his friend, the judge, went out for their usual walk. As they crossed the Rock Island tracks Colonel Carpenter said:

"This is the weather for railroad wrecks, judge. Cold costs the railroads lots of money every winter—from snake-rails."

The judge wanted to know what a snake-rail might be, and the colonel answered:

"A rail split by the intense cold. There she blows now," he added.

The California Special was whistling for the station at Trenton.

The two men trudged on through the snow beside the track, and presently the California Special thundered by, and then—

Colonel Carpenter and the judge saw the locomotive shoot up into the air, to plunge into a snow-drift, while two of the Pullmans leaped to a position at right angles with the track, and a passenger-coach toppled over.

One agonized shriek—a woman's voice. Then all was still.

"Derailed," the colonel said quite calmly. "Snake-rail," he added, then bounded toward the wreck, followed by the judge. A number of Trentonites came on a run toward the scene of the disaster.

Flames were now rising from the overturned passenger-coach, out of the windows of which men and women were climbing in frantic haste.

"That car is full of passengers, and many of them will be burned to death unless we can extinguish the fire!" shouted some one.

"Where'll we get the water?" said another. "Everything's frozen."

"There's millions of gallons of water right at our feet!" cried Colonel Carpenter. "Everybody get to work!"

He hurled a snowball at the burning coach.

Instantly the crowd understood. Every man began to snowball the coach.

More and more citizens joined the "fire department," till fully a hundred men were hurling snowballs. Thus the flames were soon extinguished. All rushed to the coach to join in rescuing those who had not yet been able to scramble out. Not one passenger had been seriously hurt by the flames.

"But," said an old man—the last to be helped out—"if it hadn't been for that snowballing, many of us would have been cremated alive."

The train conductor in his report said:

"One coach-load of passengers was saved by ten thousand snowballs thrown by an army of one hundred persons commanded by Colonel William Carpenter. Many of his soldiers are suffering worse than the passengers or crew in the wreck—from frozen fingers, toes, feet, and ears."

It was the general opinion of the men and officials of the Rock Island that so many lives had never been saved by so novel a scheme of rescue following a railroad wreck.

Colonel Carpenter's valiant army stood knee-deep in snow, with the mercury at twelve degrees below zero. Many of his men had hastened to the rescue without overcoats or gloves or proper protection for head and feet, and some of them lay on beds of sickness for days afterward, suffering severely as the result of exposure to the cold and from frozen fingers and frozen toes.

Two weeks after the "snake-railing" of the California Special, Colonel Carpenter received a letter from Division Superintendent Easley, thanking him and his snowball brigade, and adding:

"It is a pleasure to inform you that each and every one who so gallantly, without thought of self or consequence, snowballed the burning car, will receive due recognition and substantial reward."

Colonel Carpenter, after showing this letter to the judge and several members of his army of snowballers, wrote an answer something like this:

DEAR EASLEY:

You'll have to show us. We can't see that reward. We merely seen our duty and done it.

A gang of graders were laying the road-bed of the new Springfield and Southwestern Railroad through Green County, toward Springfield, Missouri. Early in April, 1907, the road-bed had been laid to within a few hundred yards of a shack that stood directly on the right-of-way as staked by the engineers.

The foreman of the graders hastened to the shack and found it a combination house and stable, the whole serving as the domicile of one Daniel Hogan and his horses.

Hogan had worked for many years as a section-hand for the Missouri Pacific Railroad, but was now a horse-trader, living in the shack as a squatter. He did not own the land, consequently, the railroad people, having obtained general consent to the right-of-way through the county, had not deemed it necessary to "approach" Hogan personally on the subject of tearing down his shack.

"Dan Hogan," said the grade foreman, "you must move out of here. My men will reach this spot in a day or two—and the line runs right through this shanty."

"Go long with you," replied Hogan as he lighted his pipe. "Sure, haven't I lived here for fourteen years? Me home's me own, and I'll wallop the first man that touches stick or timber of it. Maybe I'll put you in law, too, mind? I do be full acquainted with the law."

Two days later, when the grade reached the hut, Hogan stood in his doorway, belligerent, hostile, pugnacious. Rolling up his sleeves, he cried:

"One at a time now, yous! I'll fight any wan of yous that trespasses on me home!"

The foreman argued and protested and even demanded that Hogan abandon the hut peacefully; but the irate son of Erin talked so much about going to law that he succeeded in frightening the foreman into the belief that possibly any attempt to dislodge the squatter by force might plunge the railroad company into legal complications.

The upshot of the matter was that the foreman ordered his men to build the road-bed right up to the south wall of the hut; to leave the hut alone, and then to resume work northward from the north wall.

A month later along came the track-layers, and a new foreman met the enemy in the person of the obstinate Hogan

"We're going to pull this building down, Hogan," announced the foreman.

"It's mighty confidint yez are," answered the old section-hand "Lay hand on me home, and I'll make it so hot for your company in the coorts that you'll be losing your job for trespassin' illegal. Sure I'm an intilligent man, and I know me rights."

The foreman of track-layers could not adopt the course that had been pursued by the graders, namely, to build up to the south wall of the shack and then resume work northward from the north wall.

Therefore, the foreman of track-layers now hurried down the line to where the railroad construction engineer, a young man named Edgar Morrison, was inspecting the work.

Morrison, after listening to the foreman's story of the predicament with respect to Dan Hogan's hut, said thoughtfully:

"You say that Hogan keeps repeating the statement that he is a man of intelligence? Yes? Well, then, that's his weak spot. No argument will avail with him except one that touches his vanity in respect to what he conceives to be his intellect. I think I see a way to get rid of Hogan without a hand-to-hand fight and without bringing the affair into court."

A few hours later young Morrison sauntered up to Dan Hogan's shack, entered, and said politely:

"Pardon my intrusion. Is this Mr. Daniel Hogan?"

"That's me name," answered the horse-trader. "And sure I know you, Mr. Morrison. You're the boss over all the ignorant foremen on this railroad work."

"Yes, Mr. Hogan. I've come to have a little talk about this home of yours, because I know you to be a man of intelligence—I may say *large* intelligence."

"Aye!" assented Hogan, throwing out his chest.

"Well, then, Mr. Hogan, as the ambassador of the railroad company, and as czar to this, your castle, it is my duty to remind you of an important matter of which you doubtless already possess full knowledge, but which you seem to have overlooked in your very able debates with our foremen. I hardly need say to a man of your intelligence that I refer to the right of eminent domain."

"Hey? What's that?" cried Hogan, growing red in the face. "Yis, yis! I understand. Now, d'ye know, I had clean forgotten all about her. 'Tis true, I've heard say she do be the owner of this land."

"It's a pleasure to converse with an in-

telligent man like you, my dear Mr. Hogan," said the young engineer. "You will permit me now to mention a fact—of which you are cognizant, of course—relating to the right of eminent domain as applied to railroads when acquiring property in this State for purposes of right-of-way.

"The Supreme Court of Missouri, as you already well know, has recently handed down a decision that the right of eminent domain, as applied to a railroad acquiring a right-of-way, does, by reasonable construction, include the right to exercise the said power of eminent domain for the acquisition of any of the necessary adjuncts of such road."

"Aye!" put in Hogan. "The lady knew her rights, and, of coorse, the Suprame Coort backed her up. I do not dispute that, Mister Morrison."

"Therefore, my dear Mr. Hogan," continued the engineer, "that right as applied specifically to this castle of yours, gives the railroad the power to condemn, raze, destroy, and obliterate this house and stable forthwith without further notice, all, of course, in the lawful exercise of the right of eminent domain. You quite thoroughly understand the situation, my dear Mr. Hogan? Of course you do. You understand that any further obstinacy on your part would be a distinct reflection on your intelligence."

"Well, now, Mister Morrison," the squatter replied, "since you put it that way, I may as well inform you that sich was me own opinion. Tell the lady that I'll be movin' this night over to the house of Jim O'Riley, whose wife do be takin' in boorders, of which, be to-morrow marnin', I'll be wan."

Morrison sauntered away, his grave face betraying none of his inward amusement. He had not gone far, however, when he wheeled round and returned to the hut to say:

"Pardon me, Mr. Hogan. My own limited intelligence leaves me in a quandary. I am in some doubt as to the particular lady to whom you refer—the one to whom you wish me to convey your courteous message."

"I'LL KILL ANY ONE THAT TRESPASSES ON ME HOME!"

"The lady!" exclaimed Dan Hogan. "Sure, who should I mean but the lady who do be provin' to me her right to exercise her power over this property and all necessary adjuncts thereof. I mean the lady who owns this land—Emmy Domain."

The Conductor Fan.

At every Rock Island Railroad station in Missouri, Conductor Jim Reach was known as a baseball enthusiast. In St. Louis, where he lived, he was famous among the railroad boys as the hottest fan of them all.

Even while he was terminal yardmaster at St. Louis, he frequently contrived, somehow, to get away from his post long enough to see the last half of the big games.

When he became a conductor and got a day run, he still managed to attend the most important games, but grieved deeply because he missed seeing the lesser twirlers and sluggers at work. For ten years he divided his time between conducting Rock Island trains and fanning at the baseball parks.

One evening Jim Reach returned to his home on Spring Avenue and said to his wife:

"Mollie, I'm transferred to a night run."

"Then you yourself asked for the transfer, Jim, dear, now, didn't you?" Mrs. Reach replied.

"Yes."

"Please change back to the day run, Jim. If you take the night run you'll spend all your afternoons watching baseball games. That's why you changed, isn't it?"

"Yes."

"Jim, dear, you're a Mason, you're an Elk, you're a member of the Missouri Athletic Club—and all these societies, together with your baseballing, take you away from home too much. Think of our children. They want to see their father once in a while. Please, Jim, dear, don't take the night run."

"I've asked for and received the transfer, Mollie. What's done is done. But I will cut out the lodges, and leave the house only on the days when the big fellows pitch."

Six months passed. All that time Jim Reach conducted No. 28—the St. Louis-Colorado Express—by night and fanned by day.

One night when Jim Reach arrived at the Union Station, St. Louis, to take his train out, he had a little heart-to-heart talk with his engineer and fireman, Will Cowan and Hy Ryan.

"Boys," said Reach, "this run to-night will be my last with you. I'm going back to a day run."

"What!" exclaimed Cowan. "Why, the baseball season is just beginning. How will you get off to attend the games?"

"I've got to quit the night work, Cowan. My wife, ever since I took the night run, has been at me to go back to daylight railroading."

The next morning, Mrs. Jim Reach helped her three children to dress, then went down to get breakfast. She sang blithely while she fried the bacon and eggs and mixed the pancakes. That morning Jim Reach would come in from the very last of his night runs.

Some one rang the front door-bell. Who could the caller be at that early hour?

Mrs. Reach took off her apron and opened the front door—to find that her caller was Engineer Boyer, of the Rock Island, an intimate friend of her husband.

"Why, Mr. Boyer. Glad to see you. Where's Jim?"

"Coming, Mrs. Reach. Yes, he's on the way here."

Boyer was taken into the best room. After looking around and playing nervously with his cap, he said:

"Where're the children?"

"In the kitchen. Why?"

"Oh, nothing particular, Mrs. Reach. Jim will be playing with them evenings—now that he's gone back to a day run, won't he? But, Mrs. Reach, I've come to tell you that—well, that—oh, yes—that Jim and me were having a long talk last night on Jim's pet subject.

"'Boyer,' he says to me, 'a good eye and the ability to time your swing ain't all there is to the art of batting. No, sir. You must also know how to outguess the pitcher. You must know the twirler's twirls as well as he knows 'em himself.'

"Yes, Mrs. Reach," Boyer went on, "Jim Reach certainly knew—knows—all about pills and sluggers. Says he to me:

"'Boyer,' he says, 'strength is not really necessary in a slugger. No, sir. You just meet the pill squarely with a snap swing and it will travel just as far as if you put all your heft behind it.'

"Well, Mrs. Reach," concluded Boyer, "I'll be bidding you good morning. Oh, by the way, Mrs. Reach, I came to tell you—well, now, Mrs. Reach, did you ever hear Jim speak of a wooden trestle that's on our run over at Union, Missouri?"

"No. Why?"

"Well, Mrs. Reach, I must tell you—good morning."

Without another word, Boyer opened the door, stepped out, and closed it behind him, leaving Mrs. Reach standing in the middle of the floor in dumb amazement.

"Well!" she exclaimed. "Whatever made Sam Boyer call on me at seven o'clock

"CAN'T YOU SEE THAT I'VE JUST RUINED MY WHITE DRESS?"

in the morning just to tell me that nonsense about baseball and a trestle at Union, Missouri? He certainly acted queer, anyhow."

Meantime, Boyer went down to the Union Station and met his fireman, Sid Goldthwaite.

"Did you tell her?" asked Goldthwaite in an awed voice.

"No," replied Boyer. "I just couldn't. You go up there and tell her yourself. Do it for me, Sid, like a good fellow."

"Sure I will," said the fireman. "Some one's got to do it."

An hour later, Goldthwaite called at Boyer's home.

"Did you tell her," asked Boyer in a hoarse whisper.

"No," answered the fireman. "I just couldn't. Beside, I didn't need to. Jim Reach's body had already been carried into the best room and the undertaker was on the job. Well, Boyer, that wreck of 28 last night was a bad one, wasn't it? Bill Cowan tells me that when he saw his cars dropping through that trestle, he thought sure that everybody present was about to cash in."

"And to think," answered Boyer, "that not another darned person aboard of that train was killed except Jim."

Tim Murphy was a huge-hearted engineer, and mighty was he in sympathy. Tim Murphy was on the head-end of the Denver Flier of the St. Louis, Keokuk and Northwestern Railway, running over the Chicago and Alton tracks. On this particular run he was approaching the trestle near Louisiana, Missouri. He cried to his fireman:

"Great Cæsar! There's Hen Baird and his whole family in the middle of the trestle!"

Murphy put on the emergency. The Denver Flier gave a series of jolts and jars, which the passengers did not forget for weeks afterward.

"They're done for—the whole Baird family!" yelled Murphy. "I can't stop in time!"

The Flier rushed on the trestle toward the four persons in the middle of it—a man, a woman, and two young girls.

That trestle was eighty feet long, thirty feet high, and a single tracker. On neither side of the track was there room for the pedestrians to stand aside for the train to pass. Either they must jump to death on the rocks protruding from the shallow stream thirty feet below, or they must remain on the structure to be killed.

"Good-by, Hen!" shouted Murphy, believing that his train was about to wipe out the Baird family.

Even as he said good-by, the tears in his eyes, the four persons threw themselves flat on the ties on the outer edges of the trestle.

The train dashed by them and came to a stop. With tears now streaming down his face, Engineer Murphy climbed out of the cab.

"Hen Baird and his whole family—gone, gone!" he wailed.

He ran back, expecting to find that the mangled bodies had been hurled from the trestle and that he would see them floating down-stream. But not a sign of a body could Murphy see.

The train conductor joined him and Murphy, trying to force back the tears that simply would well up out of his soul, sobbed:

"And to think this should happen to me! To think that it should be left to me, Tim Murphy, to wipe out Hen Baird's family!"

"Don't cry, Murphy, old boy," said the conductor, soothingly. "The Baird family is in good health, though maybe a little uncomfortable just at present."

"What do you mean?" asked Murphy, brightening up and wiping away the tears.

"I mean, that the four of them are lying flat on the ties under the train. They were taking a Sunday afternoon walk—and got caught here, as you see. But they're a family with presence of mind. So they just lay down and let you run over 'em. They're not hurt a bit—only inconvenienced. Back the train slowly now, Murphy, so they can get up and walk off the trestle."

Murphy climbed into his cab—and backed the train very slowly until four figures uprose in front of the engine.

Murphy stopped the train and said to the Bairds:

"It was a close call, Hen." Murphy could not keep back the tears.

"What you bellerin' about, Murphy?" asked Baird, viewing the engineer's tears in amazement.

"I can't help it, Hen. There are two kinds of tears, you see. One's for funerals and the other's for resurrections. I've shed both in the last five minutes. And you, Miss Kate," turning to the eldest daughter: "Weren't you just scared stiff?"

"Not at all, Mr. Murphy, thanks. I'm mad, that's all."

"Mad?" What about?"

"Can't you see, Mr. Murphy, that I've just ruined my white dress? It had just been laundered! Isn't it a shame!"

"So sorry about your dress, miss. But now, if you four will kindly continue your afternoon walk and glide off this trestle the train will then be able to resume business."

Murphy climbed once more into the cab; a tear again stole down his face.

"What are you weeping about now?" asked the fireman.

"There's three kinds of tears, boy," answered Murphy. "I've already shed two kinds. This particular kind I'm shedding now represents sympathy for folks who find it necessary to bluff this game called life."

"Bluff? What's that?"

"I mean sympathy for families that bluff, get called, and lose out."

"No savvy. Show me."

"Don't you see, you tallow pot, that these four Bairds were bluffing? They pretended to be all right. Bet you a gold double-eagle to a tin dime that by the time they get home they'll all four of 'em go to pieces and call in a doctor."

The next day, when Tim Murphy stopped his train at Louisiana, he said to the station-agent:

"How are the Bairds to-day?"

"Their house is turned into a hospital, Mr. Murphy. They're all down and out."

"With nervous prostration?" Murphy asked.

"Yes."

"Old tallow-pot," said Murphy to his fireman, "hand over that tin dime."

"FLAG THE TRAIN!"

BY WILLIAM B. CHISHOLM.

(*From an Old Railroad Scrap Book.*)

The last words of Engineer Edward Kennar, who died in a railroad accident near St. Johnsville, N.Y., April 18, 1887.

GO, flag the train, boys, flag the train!
Nor waste the time on me;
But leave me by my shattered cab;
'Tis better thus to be!
It was an awful leap, boys,
But the worst of it is o'er;
I hear the Great Conductor's call
Sound from the farther shore.

I hear sweet notes of angels, boys,
That seem to say: "Well done!"
I see a golden city there,
Bathed in a deathless sun;
There is no night, nor sorrow, boys,
No wounds nor bruises there;
The way is clear—the engineer
Rests from his life's long care.

Ah! 'twas a fearful plunge, my lads;
I saw, as in a dream,
Those dear, dear faces looming up
In yonder snowy stream;
Down in the Mohawk's peaceful depths
Their image rose and smiled,
E'en as we took the fatal leap;
Oh, God—my wife! my child!

Well, never mind! I ne'er shall see
That wife and child again;
But hasten, hasten, leave me, boys!
For God's sake, flag the train!
Farewell, bright Mohawk! and farewell,
My cab, my comrades all;
I'm done for, boys, but hasten on,
And sound the warning call!

Oh, what a strange, strange tremor this
That steals unceasing on!
Will those dear ones I've cherished so
Be cared for when I'm gone?
Farewell, ye best beloved, farewell!
I've died not all in vain—
Thank God! The other lives are saved!
Thank God! They've flagged the train!

O'TOOLE'S THIRD WRECK.

BY CALVIN JOHNSTON.

The Professor's Predictions Came True, but O'Toole Engineered the Smash-Up Just to Please Himself.

"'TIS a calm and sultry night," mused the old switchman as the yard-crew pressed close around the shanty stove, which was white-hot from the base to the first joint of pipe. The gaunt, weather-beaten faces scowled on him in the infernal glow, while the wintry tempest without raked the shingles with a flail of ice.

"A calm and sultry night," mused the old switchman.

The others struck their foreheads and drew back; and then the speaker was enabled to occupy the warmest, coziest corner on an old coach seat in front of the stove.

"I wance had an uncle who discoorsed that way av an avening," whispered Hogan. "Befoore morning he bit me, and we became violent."

His comrades nodded significantly and edged toward the door.

"Do ye set yezselfs up as a boord av lunacy?" inquired the old switchman with contempt. "Some time ye will drive me mad with stupidity, but on this occasion I will show patience with a great effort. I had another night in mind that w'u'd make this wan seem tame by contrast; but ye do not know a figure av spache."

"Whist! 'Tis a story, and this the night av nights," said Hogan. "Only the while ago I saw a white wan waving at me through the snow by the abandoned cars on the Bolivar siding."

"Aye, 'tis a story," averred the other, raising his finger menacingly. "The story av a night that makes this seem wan av still dews and roses under a summer moon. It was the night av the third wreck on the ould P. D. Q."

There was a rustling stillness, as when an audience creeps into a darkened playhouse to sit awed and expectant before an empty stage. The old switchman began:

"Afther an age av iron coomes an age of rust, and what I have to tell ye is of a time so long agone that steel rails have rotted like wood, and the fashion in smoke-stacks has changed four times. But I raymimber whin Terence O'Toole was a railroad gintleman of the ould school, and used to walk thrack a few steps behint the thrains av the P. D. Q. with a basket on his arm.

"As soon as the basket was full av the bolts and brasses, which w'u'd be knocked out of the cars with the jolting, he w'u'd rayturn to town and sell thim to a broker in new railroads, and thin invite the road-masther out to drink up his per cent of profits.

"Whiniver the road-bed got beaten down to a level, and no bolts fell out, he w'u'd rayport the thrack in bad order, and the road-masther w'u'd sind out a siction-gang to repair the smooth places. It was hurdle-racers we had for thrains in the good times. I miss thim now, though in those days nobody did.

"Betwane walking up the track for the railroad coompany with an empty basket and returning for himself with a full wan, the O'Toole made money ivery step of the way. He was a prosperous man, and lent money to the trainmen at high interest.

"'It must be high, for it is all I will iver get,' he says, and the trainmen made good his wurrd.

"But for all this, and iverybody under obligation to pay him high interest, O'Toole was not a happy man.

"'And 'tis only yezself who can make me

wan,' he tould Mrs. Finnerty, who was a widdy by her second hoosband and owned the telygraph office at that station.

"'I have whispered to meself awake; I have shpoken it aloud in my drames, that if I wed again, 'twill be for romance,' said Widdy Finnerty. She withdrew her hand from Terry's long enough to answer a telygraph-call and demand an apology from the operator down the line.

"'''Tis interoopting me he always is,' she says in anger. 'He is no thrue knight of the wire.'

"'No thrue what?' asks O'Toole.

"'Knight, ye numskull; sure, ye have no romance.'

"'Romance,' repeats Terry; 'and me decaving the road-masther on his percentage ivery day! Didn't thirty-wan strike a repair in the track only last wake, and thin rain bolts and washers till she broke down? Faith, it was like taking a train apart, and I brought back so much of it on a hand-car that I felt I should have a despatcher's order. And yet the road-masther got only sivinty cints as his share, though he wanted a dollar—the greedy divil! But why didn't he get it? 'Twas romance saved me, Mrs. Finnerty—romance!'

"She raised her head with scorn and discharged a look which staggered him.

"'Bad 'cess to ye for an ould dragon,' says O'Toole. 'Happy the hoosbands who have died av ye. And I will have ye know that the O'Toole will be a romance to nobody, ixcipt the road-masther.'

"But he had retreated softly from the room and closed the door behint him befoore disclosing these sintimints, for the O'Tooles are as sly in the head as foxes.

"'I retired with dignity,' he said proudly; 'and can go back for my hat to-morry.'

"Thin, it being avening, he wint over to the house of McGraw, the freight conductor, who had been stricken down with Katie Malone and had married her in a spirit av adventure.

"'Ha! there is romance here,' says O'Toole, standing among the dead leaves in the yard and listening to an uproar which came out of the house. 'I will ixamine how it wurruks,' he goes on, knocking loud at the door and looking back to see that nothing hard to get over was between him and the gate.

"A silence fell inside, as if some wan not without respect in the family had died suddintly.

"'''Tis McGraw who will not stand for nonsince,' muses O'Toole; 'he has put the gag on her.'

"But it was Mrs. McGraw herself who opened the door a crack, and says:

"'G'wan with ye, polthroon as ye are; w'u'd ye knock out the side of the house in such an hour as this, and me by rights a widdy?'

"'A widdy!' laments O'Toole; 'sorrow the day. Thin it was a wake ye were holding instead of a love-faste.'

"'Ah-h-h! it is yezself, is it?' she answers, straightening up with a kind of snarl 'Ye were that official. I thought it was the call-boy for thirty-five. Perhaps ye will coome in,' she goes on in a bitther, suspicious way through the crack av the door.

"'I w'u'd like to see Michael only wance more,' whimpers O'Toole with a kind of faintness, for it was his second widdy that day; and he held on to the new hat he had bought and thanked the saints there were no stumbling-blocks to the gate.

"'I am no knight of romance,' he reflects as rapidly as possible, 'and, if necessary, I will take the fence.'

"'And what have ye against my Michael, ye human battering-ram?' says Katie, 'that ye w'u'd see him only wance again? Is he not good for a constant companion, cold-blooded money-shark, as ye are?'

"O'Toole shudders at the thought.

"'I w'u'd see him out of interest—' he begins.

"'Ye will not get it till pay-day,' she hissed, and w'u'd have slammed the door, but McGraw himself comes up behint in a white sheet; and O'Toole, seeing him, falls into the crack with a gasp.

"But they were kind-hearted people, who w'u'd not let even a creditor die on their hands and be accused of murder. Dragging O'Toole inside the parlor, they held a pint bottle under his nose.

"'The saints be praised, I can hold my own bottle!' says O'Toole 'and ye are not dead at all, Michael?'

"'I thought ye were the call-boy,' explains Katie sourly; 'and I w'u'd not have Michael go out on the road this night, so I sint him to bed. He is a sick man—'

"'I am not,' says Michael, wresting the bottle away from O'Toole.

"'A man near to death is sick,' Katie tells him in a voice like the crack of doom. Then O'Toole ducked his head and looked cautiously in all directions, for he was not

the man to coome between Michael and a fate which might be better for him.

"'Ye w'u'd rather be kilt than at home with me,' goes on Katie in a sob.

"'Thin it will not strike him here,' says O'Toole.

"'It is time for the third wreck,' Katie answers, 'and he is seeking it out. Plead with him, O'Toole,' and she breaks down entirely.

"'I will,' says O'Toole, elevated by the drink. 'Michael, be a man, and do as yez wife commands. Ye have no romance.'

"At that wurrd Michael laughs in a hollow tone, and the cedar-tree beyant the window scrapes the glass with a witch's laugh. But, even in the midst of weird signs and distress, curiosity gets the betther of thim, and the two McGraws stare into O'Toole like owls on a hallowe'en.

"'Terence,' says Katie, in a soft and wheedling voice, 'where did ye get it?'

"O'Toole felt the shivers run over him at the way they looked.

"''Twas the Widdy Finnerty gave it me. Is it a fatal wurrd to mark me so?'

"They stared into him, cruel with glee, and O'Toole goes on to change the subject in haste.

"'But that is better than being branded with superstition. There is no third wreck.'

"'Listen,' says Katie, fixing him with a long forefinger; 'first coomes wan wreck; thin another wan, which makes two; and after thim, a third. Count thim yezself, ye scoffer! It is so on ivery road, and we have had two little wrecks; now coomes on a big wan. The profissor who takes thim down on a blackboard told me so this day. He gets spirits in sayances, and harkens to thim like a man of sinse.'

"'Thay are fools who listen,' responds O'Toole boldly.

"'The Widdy Finnerty was there.'

"'Who listen, and thin belave in it,' goes on O'Toole less boldly, for he raysons: 'Katie will tell the widdy I said this, and I will be out a hat.'

"'Arrah, listen how he changes his tune. It is noble of ye, Terence; ye have romance. But, Michael, ye have none, and w'u'd rather risk yez life on the road than at home. *Wurra, wurra,*' she chants, rocking back and forth, 'I am a lone woman; he has no romance.'

"'A curse on ye, O'Toole, for bringing the wurrd into my home,' growls McGraw. 'It was all happy till ye came.'

"'I heard ye celybrating yez happiness from the strate,' says O'Toole, made desperate between the two of thim.

"'Yis, yis, it was all happy till he came,' sobs Katie, and thin they thrust O'Toole outside and slammed the door against him without his hat.

"''Tis a fatal wurrd,' he thinks, and goes home in the winter wind with a handkerchief tied around his head.

"'I am a practical man,' he told himself over and over before going to bed; but, later, he drove on in dreams with the Widdy Finnerty till the clocks struck midnight, and thin he woke up to be rid of thim.

"'May the fiends strike ye dumb,' he says of the clocks for taking a low advantage of him. 'Ye have set me to struggle against my fate in an evil hour.

"'Perhaps I am not to blame; there is romance in the blood of the O'Tooles, and my grandfather married his landlord's daughter in Kilkenny. My curse light on him; he w'u'd rather fall in love than pay rent. He has set me a bad example, and I will go back after my hat to-morry.'

"And he's awake till the morning, whin he mates Widdy Finnerty at the door of the telygraph office.

"'Woman, I have it,' he says at wance, 'romance will crop out in spite of me, for it is in the blood of the O'Tooles.'

"But she looks on him with a wicked eye.

"'Sorrow the day we should talk about romance,' she answers, 'whin there is wreck and destruction hanging over us all.'

"'Is it the profissor of ghosts again?' ixclaims O'Toole in anger. 'Sure, hasn't the wrecking-train been the only wan run on time since the road was built? Ye are as downcast as if the pay-car was in trouble.'

"'Ye think of nothing but loot and salary,' says she. 'Do ye niver raymimber the wurruld of spirits? OToole, if ye had romance, ye w'u'd sacrifice something to it.'

"'I will sacrifice the profissor of ghosts,' threatens O'Toole; 'or ye will soon have him writing out the bulletin-boords in a trance in a dark room, and not a man will go on the road for fear of the third wreck.'

"But, ever responsive to the call of duty, Mrs. Finnerty answered a telygraph-call and refused to take a train-order till she had hung up her cloak.

"And O'Toole worried with the thought av sacrificing for romance, stole his own hat

and quickly retired before she could drive him away.

"'Since every wan is now afraid to run on the track, I will not even risk walking along it,' he says, and goes over to Flaherty's saloon, where the spread of the profissor's prophecy has driven the trainmen to buy whisky on credit.

"He did not see the profissor till late that afternoon, and thin it was through the windy of the telygraph office, sitting cozy and comfortable with the Widdy Finnerty.

"'He does not look like a man of spirits and prophecy,' thinks O'Toole, for the profissor would not consint to be haunted out of business hours, and whin O'Toole wint in he was shaking the fat sides of him.

"''Tis Profissor Anonymous, O'Toole,' says the widdy proudly, and Terence sat down to study him.

"'This is a comfortable man,' mutters O'Toole aside, 'but 'tis not meself who can be fooled with fat and a magic name.

"'I had an ancestor who was own brother to ye,' he says with a kind of cruel chuckle to himself, and well remembering that his ancestor was the greatest scoundrel out of County Cork.

"But the other caught the glame of jealousy in his eye and smiled in a kindly way.

"'Whist,' he says, while the widdy was busy at the instrument. 'Some ancestors must be lived up to, and some lived down. I will not expose ye in this wan.'

"''Tis a waste of wurrds, and yet I have the worst of it,' thinks O'Toole. 'I must be cautious, for he is a low and crafty man.'

"'My ancestor was a collecthor of banshees,' he goes on, afther reflection.

"'They are poor craytures,' replies the profissor with a yawn, 'but they were useful whin paying a landlord—with curses.'

"''Tis little we know,' says the Widdy Finnerty, and O'Toole agreed with her.

"'It is betther to nod, whin for a shake I would be thrown out again into the cold, and thin backbitten around a hot stove.'

"The dusk creeps on, and they sit discoursing till the road-master drops in and sinds O'Toole after his per cent of gin. Thin they sip away softly, the stove crimson hot in their midst, while the blizzard caterwauls in the chimney-flue.

"They tell of ghosts and warnings, and build cozy little wrecks on the floor bayfore thim. So they stare, and are afraid of wan another in the bloody light, and are ready for another dram of gin.

"Only wance does the O'Toole venture himself in speech, but he rankles with jealousy of the other guests and thinks:

"'Why did I niver suspect that every man was crazy about her? Now I must hold my own against these ghostmongers, and since I cannot tell even wan tale, I will deny thim all.

"'There is nothing into it,' he spakes out boldly. 'The trainmen were scared enough about the third wreck, and now, with yez prophecies in the wind, they threaten to murder the call-boy if he finds thim. Soon we will have to run our trains wild, without crews or orders.'

"The other two would have turned against him, for that day it was fated that O'Toole should be put outdoors by relays, but the profissor raised his hand.

"'Let him rave on,' he commands. 'A misguided man will wreck himself.'

"'Hoo to ye all,' exclaims O'Toole, contimptuous with jealousy and gin. 'I w'u'd take out a train meself, alone, without orders or signals; 'tis the man of spirit against the men of spooks.'

"The profissor gazed at him, and the eyes in his fat face were like two red signal-lamps twinkling by an open switch.

"'Ye have shpoken. Ye will be the third wreck,' he says in a voice of doom.

"Being a condemned man, the others went away and left him, the two gentlemen escorting the widdy, who looked back at him wance with a tearful eye. So O'Toole glowered on by the stove, and snarled at the night operator.

"'I will not go home till after midnight,' he mutters. 'A curse on the hour of romance.' And, on after-thought, he extends this to the profissor and the road-master.

"Now, all that week, above the foot-hills where the station lay, wild geese had been crying to the south from the gray of morning. Wurrd had come down the line of cloud banners flying from the peaks beyant and of Indians who had crept in from the warpath to smoke the pipe of peace by the station stoves.

"'Faith, the blizzard has arrived on time,' mutters O'Toole as he steps onto the platform and is whirled around the corner of the station-house in a tornado of gray and black.

"With head down, he plunges up the track toward home till he comes to the siding of abandoned cars, where the doors

creak back and forth and the brake-chains rattle in the wind.

"'Ye black skeletons, do ye prophesy against me, too?' he scowls back at thim. 'Sure, 'tis a fine, wild special ye wud make for the third wreck! Without orders or signals!' he growls as he goes on.

"Soon he is sorry he has spoken so to thim, for at home and in bed he cannot sleep for dreaming that he is coasting down the foot-hills, on a bad-order special, outstripping the hurricane. And the voice av the Widdy Finnerty gives him the thrain order:

"'Meet the first thrain ye come to—head-on. Ye are sacrificing for romance.'

"'Meet thim head-on!' cries O'Toole, starting up in bed with the cold sweat on his forehead. 'Tis a sign of the times,' he says. 'Yisterday I gave up to romance; to-morry I must knuckle down to sacrifice. Yet, I w'u'd not run into danger, except blindly.'

"Dangerous the wan who broods by pipe and candle of a stormy night, and the O'Toole was a man-trap when he schemed.

"'The profissor has profissed against me,' says Terence. 'Sure, it is this train of thought which will make a wreck of me.'

"'I have it,' he chuckles, and bites in two the pipestem. 'I will yield to the prophecy, and it will be a pitfall to him.'

"All that next day he chuckles till afternoon, and thin he walks down the track in clouds of snow till he coomes to the abandoned cars.

"'Ould death cells, ye are the prophet's special,' he says to them, and knocks out a coupling-pin four cars from the head end. By which token it is proved that the disturbing dream still ran wild in the brain of him.

"He laughs at the storm on the way to the telegraph office.

"'I am in such high humor, I w'u'd be welcome anywhere,' he thinks. 'The widdy will beam with joy to see me and to hear that I will make any sacrifice for romance of her.'

"So he stamps into the telygraph office, and calls 'The top of the day,' as he stands blinking in the rosy glare of the stove.

"There, sipping a hot wan, sits Widdy Finnerty, the profissor, the road-masther, and the two McGraws.

"'Here he is again,' they welcome him, and O'Toole shrinks with its significance.

"'Do ye not know me?' he asks. 'I will show my face by the stove.'

"'We know ye,' says the road-masther. 'Have ye any money?'

"'I have not,' answers O'Toole cautiously.

"'Thin ye are an intruder,' says the road-masther.

"They all look at him, but O'Toole looks at the Widdy Finnerty where she sits, trim and pink-cheeked, with the black eyes of her cast down to the floor.

"'I will have a by-wurrd with ye,' he says, and defying thim all, he leans over and whispers:

"'I will sacrifice, widdy, or do anything to be rid of romance.'

"She blushes and startles, and the others, leaning forward indifferently, overhear the wurrd.

"'Shame on ye,' spakes up McGraw's wife, 'to be making love in public. Sure, Michael w'u'd niver do so; nor at home, either, for that matter. Och hone! I am a lone woman!'

"'Hold! I will foretell the fate of him,' puts in the profissor sorrowfully.

"'Niver mind,' commands O'Toole.

"'We know it already,' say the McGraws and the road-masther.

"'Ye lie. I will not be hung,' exclaims O'Toole. 'Besides, the profissor foretold only yesterday that I would be the third wreck, which ye should be by rights, McGraw, if ye were not afraid to go out on the road.'

"They regard him like a jury of crows on a gallows-tree, and thin McGraw the wife titters in a sly fashion and whispers to her husband:

"'The third wreck,' she says, looking from the Widdy Finnerty to O'Toole, and bringing to mind the two husbands who had gone before—for she was jealous of the widdy's romance.

"Mrs. Finnerty took in the significance with a kind of gasp; her eyes began to flicker, and as she bared her teeth with the purr of a leopard, the sounder on the telygraph-table opened up with a crash.

"There she was in a minute, taking a message and quivering with excitemint, while McGraw led out his wife softly, and the road-masther followed thim.

"'A lantern! A lantern!' Mrs. Finnerty began to cry, for evening had fallen heavy and black and streaked with snow.

"'A lantern,' says O'Toole, and lights the two—red and white.

"''Tis this,' goes on the widdy, turning

to thim with sharp, quick wurrds: 'Riley slipped from the gangway of his engine while bringing her up the yards at Division Station, and now she is running wild this way. It is thirty miles. She will be up here in half an hour or less.'

"'With the down passenger due here in twinty minutes,' cries O'Toole, grasping the lanterns. 'Is it on time?'

"During all this she had been calling on the key, but received no answer.

"'I cannot tell,' and she throws up her arms in despair. 'It is like to be a little late, and the wires are all down with the storm on the mountain division. There may be no time to get thim into siding. Ye must flag thim. Run—fly—the two of ye! Though it is like they will run past your signal in the blizzard, ye must get thim into the upper siding if possible.'

"Throwing their overcoats at thim, she pushes O'Toole and the profissor out into the snow.

"They fight their way into the gale and through the drifts, for the tempest has risen till it seems to have blown the mountains down and left a clear track from the pole.

"It takes some time to reach the abandoned cars, where the track is swept clear and slippery by the wind, and here the profissor stumbles over Terry's foot and falls, grasping at him. The lanterns crash into bits, and they both lie still in the darkness.

"'Blast ye for a true prophet!' yells O'Toole, scrambling to his fate. 'Ye have predicted evil till ye have brought it to pass.' But he laughs in his saycret thoughts, for the runaway engine and the profissor's accident only make perfect the scheme he already had in mind.

"'The abandoned cars—the Death Special,' he repeats aloud, and a kind of wild dream takes possession av him. 'Faith, I will give thim a third wreck which will split the system wide open.'

"It is not only excitement which makes him grab the profissor by the throat. 'I will give him a dose of his own magic,' he thinks.

"'I have a sayance,' he screeches in the other's ear. 'It is my own ghost I see beyant, and it beckons me to ride down the wild engine on a death special. Come! We will throw the switch, and whin we are out, ye must close it for the passinger!'

"They throw the switch, and O'Toole kicks the blocks from under the wheels of the front car, and thin springing up the ladder, runs down the string.

"'It is lucky this switch is straight up and down,' he thinks as he starts for the front again, letting the brakes fly as he goes. 'It was like backing thim up a hillside to git thim here.'

"As the last brake lets go, a rusty howl runs along the train, and they begin banging over the switch on the way down the foot-hills.

"'I will control thim so they won't jump at the curves,' he yells as they pass the profissor, who stands dumb with fright at this madness and the fear of a strange ghost. 'Tell the widdy it is the sacrifice. She has given me my orders. *Wurroo, wurroo!*' he shrieks, flinging up his hands. 'On with the wind, ye old ruins! We will strike that engine like a thunderbolt.'

"As they sweep past the station, the widdy, with starting eyes, sees that figure of swinging arms and a white, flapping sheet of snow, and falls in a dead faint across the telygraph-table.

"And O'Toole the conductor on the wildest train that ever dived down the plateau from the mountain division!

"'It will be black magic to thim,' he is chuckling in spite of the cold, and he sets the brakes on the four cars ahead till they had slowed down, and prisintly he kicks thim all off, wan after another, beginning with the first. Thin he jumps to the fifth car and sets the brakes, and this being the point where he had knocked out the coupling-pin during the afternoon, the four cars leave the others behint and shoot off into the darkness like the black puff out of a cannon.

"'The train is too long, so I run ye in two sections,' says O'Toole. 'The first section will meet the wild engine and take siding in the ditch; and thin the second, with the conductor aboord, will slide down gently to the scene of wreck.'

"He had schemed this way of separating the old cars, and thin smashing thim together again before he had ever heard of the wild engine.

"'I would let ye go lickety split now,' he says, 'but a man cannot be expicted to walk to the scene of his own sacrifice. Hereafter I am all for sacrifice and romance,' he says, going back to the middle of his train to set a few more brakes.

"Then something beyond his calculation happens, and there is a crash which pitches

him off into a deep drift, while the old cars pile up wan after another in a scrap-heap on top of the engine.

"And what has happened? Ah, 'tis the black magic of Terence O'Toole, which no wan was iver able to explain. But the secret of the affair is, that the four cars he had turned loose against the engine had jumped from a curve at that very spot. And the wild engine coming along, tamed down with the cold, had smashed into the second section.

"Whin they ran the passenger train down slowly to the wreck, they found O'Toole, half buried in snow, sitting on the scrap-heap with his head in his hands. And here was part of the cars piled up on the engine, and two hundred yards further down was four more cars lying alongside the track.

"The road-masther, who had come down on the train with the profissor, considered all this and asked:

"'How did ye do it?' And O'Toole, with the Widdy Finnerty's arms around his neck, stared at the profissor in the light of the trainmen's lanterns.

"'I had a sayence,' he told thim, 'and jumped the first four cars over the engine, and thin came down on top. It is the best way to stop an engine, but it was all wan spirit could do.'

"In the wild, ghostly night, by the light of the lanterns, no wan knew what to answer, for it could not be figured out by a sane mind at any time.

"'Do ye understhand?' cries the Widdy Finnerty to the trainmen. 'He has sacrificed for ye, and taken the third wreck into his own hands.'

"But she goes on in a whisper to O'Toole: 'I understand still better than thim. Ye are a true knight of romance, and for the sake of me ran down a wild engine on a lunatic train.'

"With a separate ache from every bone in his body, O'Toole heard her with indignation.

"'And she believes me fool enough to carry romance so far. Sure, I supposed the box-cars would stay on the track long enough to smash the engine before I came up. Still, I will be the safer for that belief.'

"So he held his peace on this and only said: 'The profissor prophesied that I should be the third wreck.'

"Well, remembering the wurrds of Mrs. McGraw, the Widdy Finnerty turned from the profissor with scorn. 'Terence O'Toole,' he says, looking him squarely in the eye, 'what ye have done this night shows ye need not be afraid to fulfil any prophecies.'

"'I am not,' answers O'Toole, and he exulted over his rival.

"'Sure, I have belittled him as a profissor of ghosts,' he thinks, 'by relating the way I raised the cars over the wild engine. He was armed against truth at every point, but I routed him with a lie. It is always best—in the end.'"

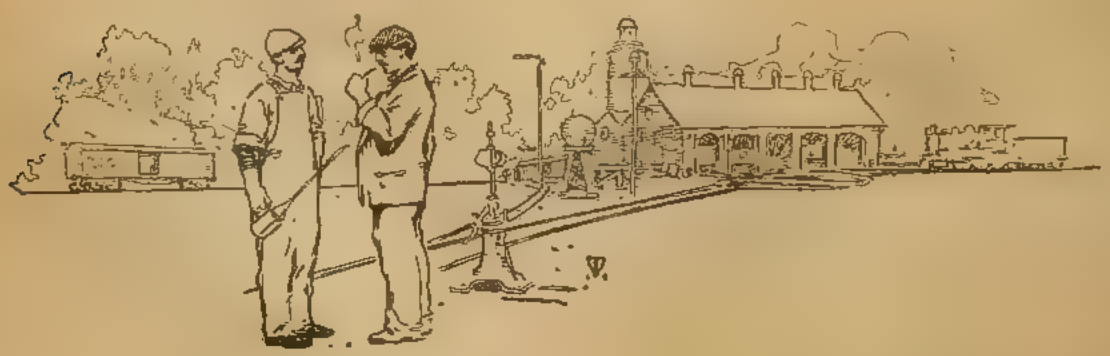
"It was a good tale," said Hogan with a sigh. "The O'Toole was a warm-blooded man."

"This night seems like wan on the equator, compared with the night O'Toole took out the Death Special," suggested the old switchman.

"It does," answered Hogan emphatically.

"Thin ye will not mind running up the yard beyant the roundhouse and closing the switch for twinty-sivin?"

"That I will not mind," answered Hogan, and lost in thought, without overcoat or gloves, he walked forth into the bitter wind and blinding snow.



The World's Greatest Juggler.

BY EDWIN MORRIS.

NOTWITHSTANDING the historical interest attached to the great engineering achievements of the past, we are fast coming to regard even the great pyramids of Gizah as but the work of children compared with the modern miracles of construction. Bigger and better is the constant cry, and no matter how startling the demand, our present-day engineers have rarely failed to deliver the goods when sufficient funds were forthcoming.

As Mr Morris points out in his article, give the mechanical engineer sufficient money to work with and there is practically nothing imaginable in the line of constructive operations that he will not undertake to carry to a successful completion. While no engineer will ever find himself facing the problem of moving the Brooklyn Bridge to Europe or digging a vent for Mount Vesuvius in Paris, who can tell but what even greater things may some day be asked of the men who are now at work building skyscrapers, tunneling rivers, and moving mountains.

Impractical Feats That Engineers Have Brought Within the Realm of Probability, and the Various Aids That Have Helped Them to Success.

A LITTLE while ago Thomas A. Edison suggested that Manhattan Island might profitably be more than doubled in size by filling up the East River and digging a new stream five miles back of the present western water-front of Brooklyn.

"It would be a very easy thing to do," he said. "It would be only a third-rate engineering feat. Steam-shovels could scoop out the new river, and trains could carry the earth and dump it into the old one. They are doing a much more difficult job out in Seattle. They are moving a mountain. I've seen them doing it. The mountain was in the way, so they are just pulling it up by the roots and carting it off."

This is all an old story to Mr. Edison, but most of the world does not yet realize what a wonderful man is the mechanical engineer. The Egyptian Pyramids make us gasp hard when we first see them, and forthwith we begin to marvel at the wonderful ingenuity that piled so many millions of tons of stone upon stone. Two thousand years from now, the natives who live hereabout will wonder why we ever gave a pleasant word to the pyramid builders when we had so much greater men for our living neighbors.

For the mechanical engineer of the present day is indeed a wonder. His profession has existed barely a half century, but he has done amazing things. More nearly, perhaps, than in the case of any other man, nothing is impossible to him. Give him the money and he will do almost anything that any one wants done.

That's quite a bit to say. All of Mr. Harriman's money wouldn't have enabled his physicians to prolong his life a second. If the wealth of the world were given to Edison himself, he probably could neither increase nor decrease by one the millions of

eggs that are annually laid by a fish. But the mechanical engineer—from what project would he fly?

I put what I thought was a poser to a New York member of the profession.

"If you were offered enough money," I asked, "would you take a contract to mount the Brooklyn Bridge on wheels and drag it across the bed of the Atlantic Ocean to Europe?"

"Of course I would," he replied without a moment's hesitation.

"Isn't the bed of the ocean filled with mud—probably to the depth of hundreds of feet?"

A Hard Nut to Crack.

"It is in some places. But what of it? If money were no object, tires so wide could be put on the wheels that they would not sink. Besides, if I wanted to, I could make the wheels rest so lightly on the bed of the ocean that they could almost go over eggshells without breaking them. I could simply attach big air-chambers to the bridge, let the chambers be submerged, and regulate the weight on the wheels by pumping in water or air."

That sounded pretty good. But how could the bridge be drawn? The bed of the ocean is a succession of hills and valleys, very much like the hills and valleys that we see on the surface of the earth. Some power would be required now and then to pull the bridge along.

"Would the seventy thousand horse-power engines on the Mauretania pull the bridge?" he was asked.

"No, they wouldn't," he replied. "Seventy thousand horse-power wouldn't get the load over the first hill. But a seven million horse-power engine can be made just as easily so far as the mechanical problem involved in its construction is concerned, as an engine can to run a coffee-mill.

"The only real problem in building an engine strong enough to drag the Brooklyn Bridge across the ocean's bed to Europe would be to supply its boilers with coal. The Mauretania's boilers use a thousand tons of coal a day. Such an engine as I have in mind might require all the steam that could be made each day from 100,000 tons of coal.

As the trip across the ocean would require a good many days, it would be pretty difficult to build a ship of such enormous coal-carrying capacity, but a fleet of colliers would answer the same purpose.

"The project would be simple enough in principle. Its difficulty would lie only in the greatness of the task to which the principle might be applied. But the Brooklyn Bridge could be dragged to Europe, all right; and if the contractor were asked to do so, and were paid for doing so, he could bring the rock of Gibraltar back with him on pontoons and set it up in Central Park—or in Kansas, for that matter."

What a combination of suggestions! Imagine the consternation of a school of whales at the sight of the Brooklyn Bridge! A sea-serpent of steel on wheels. But, at that, the whales wouldn't have anything on the English, if they were to lose the rock—or upon the Kansans, if they were to get it. Maybe it's a good thing that mechanical engineers cannot always get all the money they would need to do all of the things they could do. For instance:

"Could you take the fifty-story Metropolitan Tower," I asked, "move it up Broadway to Forty-Second Street, and lay it lengthwise along the car tracks, without breaking a window or cracking any plaster?"

"That would be harder than taking the Brooklyn Bridge across the Atlantic," he replied, "but it could be done. Not only could it be done, but if the timepiece in the tower were run by a spring instead of by weights, the building could be moved and laid down on its side without stopping the clock. Don't think that I am minimizing the difficulty of the task. I am not.

Encased in Steel.

"The building would probably have to be encased in steel to give it sufficient rigidity to keep it from breaking in two when it was laid down. Special appliances of enormous size would also have to be made to ease the building down from an erect to a reclining posture; but with no limit placed upon expense, all of these things could be accomplished.

"The tower, in fact, could be moved miles across the country. The moving of any building, no matter how great, is not an insurmountable mechanical problem. The weight and the height of a building simply increase the difficulty of applying principles that, in themselves, are simple. It is a well-known principle, for instance,

that a stream of water presses against every square inch of a piston-head with the same intensity that the water is forced through the pipe.

Would Move Mountains.

"In other words, if a stream of water an inch square, at a pressure of ten pounds to the square inch, be pumped against a piston-head containing ten square inches, the pressure on the piston is ten pounds for each inch, or one hundred pounds. This rule holds good, no matter how small the stream of water or how large the piston.

"Here is a single mechanical principle with which one could almost move mountains. Put a stream of water an inch square and under two hundred pounds pressure against a piston-head ten feet square, and you have a power equal to the weight of 34,560,000 pounds. Enough hydraulic devices of this kind would almost drag Manhattan Island down into the bay."

"How about plugging Vesuvius, as a dentist would fill an old tooth, and building a new subterranean outlet, the crater of which would be in Paris? Could that be done?"

"You are getting now," he replied, "into things that are so purely fanciful that the mind can hardly conceive them as possibilities; but I suppose there is no reason why Vesuvius could not be stuffed up and a new outlet made if any one wanted the job done and had the money to pay for it. Filling the crater would be simply a matter of stonework, while making a new outlet, the crater of which should be in Paris, would be only a gigantic job of tunneling.

Tombs of the Royalty.

"If the ancients could build the pyramids without any power except that of their own muscles and the muscles of animals, I guess we moderns could fill the crater of Vesuvius, if we wanted to, by using steam-engines and electricity. And what is true of the stonework would also be true of the tunneling. Power and machinery will work out almost any mechanical problem. Tunnels were made even before the pyramids were built, and during the Middle Ages some pretty big works of this kind were successfully carried out."

All of which is true. The country around the Nile was the scene, more than twenty centuries ago, of the first tunnel-building. When an Egyptian king hopped on the throne, his first thought was not of where he would buy his new touring car, but of where he would rest his weary bones when he no longer wanted them to hang his clothes on. He must have a tomb; not a four-dollar plot in a cemetery with a glass of pansies on it, but a grave hewn out of the rock, with a pyramid over it.

More than that, a long tunnel must lead to the room in which his valuable bones were eventually to lie, and therefore the first part of the task was to build the tunnel. On such occasions it was the custom of the king to sing out to one of his boss menials:

"Bill, get forty thousand or fifty thousand men around here right away; set part of them to digging a tunnel, and put the rest of them to work toting stone. I expect to be dead in about sixty years, and there is no time to lose."

That sounds funny, but in its essence it is a fact. Labor was plentiful—all a king had to do was to go out and catch what men he wanted, and on Saturday nights no envelopes were ever passed around—but progress was pitifully slow. There was no machinery, no steam-engines, no dynamite, no rock-drills.

For a Rapid Exit.

The only way to get a stone up to the top was to lasso it with a rope, hitch it to a block and tackle, and set all of the men, camels, and elephants to pulling. Getting through rock was a matter of picks and shovels, sledge-hammers, fire, and water.

When the work became so hard that the pick-and-shovel gang were on the point of knocking off and going out to murder the king, a huge fire was built beside the rock. When the stone became hotter than a burned boot, water was dashed on it, which, cooling the rock suddenly, caused it to crack.

In the Middle Ages, kings and other particular persons reversed things a bit. They built tunnels, not to stay dead in, but to keep alive in. The people, in those days, had the habit of going out periodically to lift the kings' scalps. Of course, it was a nervy proceeding, and the monarchs resisted.

They provided themselves with suits of armor; also with soldiers who were sworn to have their whiskers pulled out by the roots and their brains beaten out with clubs

rather than see their dear kings breathe their last. But the kings always knew their soldiers were likely to change their minds after receiving, in rapid succession, three swift kicks, so royal genius provided a means of saving life when honor and the winter groceries had been lost.

Tunnels were built from the basements of the monarchical castles to secluded places in the distance that commanded good views of the country roads. It was doubtless figured out that the rulers, on the pretext of going down to put coal on the furnace, could grab a prince under each arm, open the tunnel door, and beat it for the country. Anyway, they had tunnels in those days—some of them a mile long.

During the latter part of the seventeenth century things began to liven up a little when gunpowder was first used to cut subterranean passages. The French built a tunnel five hundred and ten feet long at Malpas, but the engineer who built it wasn't much. All he could do was to cut through stone. If he had been told to drive a tunnel through soft soil, he would have thrown up his job. Nobody, at that time, had ever tunneled through anything except rock. It was the popular impression that earth, if it were trifled with, would cave in.

So it would. But these same French, in 1803, found a way to stop it. By timbering the sides, they built a tunnel twenty-four feet wide for the St. Augustine Canal, and not a man was killed. Really modern tunnel-building began on that job.

McAdoo's Tunnels.

But it was not until the coming of the railroad that the great necessity arose for roadways under the soil. Every little while there came a place where a train ought to go through a hill rather than around it. Between 1820 and 1826 the Manchester and Liverpool Railroad built two tunnels in England—the first railroad tunnels in the world. The Allegheny Portage Railroad Company, in 1831, built the first railroad tunnel in the United States.

The English and American engineers who put these works through undoubtedly stood high in their professions, and quite as certainly believed they were rare geniuses. Maybe they were—for their day. But they would have had a nice time driving a tunnel under the Hudson River, as Mr. McAdoo did.

If work had begun from each side of the river, with the intention of having the ends of the tunnel meet under midstream, it is doubtful if either crew ever would have seen the other. One crowd probably would have tapped the river and been drowned, while the other might have gone too far down and been boring yet. However, the two ends of Mr. McAdoo's tunnel came together within an inch.

Machinery and higher professional skill have alone made such progress possible. Since Mr. McAdoo finished the Hudson River tunnels that connect New York with Jersey City and Hoboken, machines have even been invented that can work through rock more rapidly than can dynamite or any other explosive.

The Hardest Thing on Earth.

A constant bombardment is kept up on the face of the rock by a multitude of drills. The drills are set in a steel disk of the same diameter as the tunnel, and, as the disk is moved around, the entire surface of the rock is battered down in one operation.

Thomas A. Edison had this machine in mind when he recently told me that nothing would so much advance construction work that must proceed through rock as the discovery of a large pocket of black diamonds.

A black diamond is the hardest thing on earth. Beside it, a white diamond is a piece of hickory, and a steel knife-blade is a piece of cheese. Because of its exceeding hardness, a black diamond makes the best cutting point for a rock drill. Mr. Edison said he had a diamond-pointed drill that had worked through a thousand feet of rock without perceptibly dulling its edge.

"I don't know why black diamonds are so scarce," he said. "They are nothing but pure carbon, like the white stone, but nature does not seem to have made many of them. Maybe nature has made a lot of them and put them in out of the way places where we have not yet found them. I hope this is the case. Certainly the discovery of a large number of black diamonds would expedite rock work as nothing else could."

Still, the modern mechanical engineer now and then does wonders of the first class with the present limited supply of black diamonds.

The rebuilding of the New York Central terminal in New York City is really about as marvelous an undertaking as would be

the dragging of the Brooklyn Bridge to Europe along the ocean's bed. Tracks are being juggled around as if they were straws; some trains are running forty feet above others; dynamite and drills are shattering the solid rock upon which the terminal is to stand; three thousand trains are coming in and going out every day; thousands of tons of baggage and tens of thousands of passengers are handled every day; and, although the work has been in progress almost five years, no train has been delayed a minute because of the work, and no passenger has been inconvenienced. Section-men out in the country who cannot replace a rail without holding up a freight-train can perhaps appreciate the magnitude of this achievement better than can any one else.

To get back to the building-juggling problem, there is at least one man in this country who believes the time will come within fifty years when every skyscraper in New York, including the fifty-story Metropolitan Tower, will be taken down. This man is Sidney A. Reeve, an eminent professor of steam-engineering, a political economist of note, and the author of a book entitled "The Cost of Competition."

Professor Reeve differs from those men who believe the skyscraper will come down because it cannot stand up. So far as the strength of its materials are concerned, he sees no reason why tall steel buildings should not stand for centuries. He does not believe earthquakes, electrolysis, or tornadoes will ever be sufficient to cause them to fall.

But he does believe that men will voluntarily remove the last skyscraper, within the next half-century, for the reason that the conditions of life will, by that time, have so changed that no demand will exist for extremely high buildings, and that their owners will then remove them. Buildings that do not pay interest on the investment are always quickly transformed, he says, into structures that are needed. This is the way he figures out that skyscrapers must go.

This is the age of barter. Men congregate in cities to buy and sell the things that other men have grown or made in the country, or in the smaller towns. In the business of bartering there are such great opportunities for getting money that there is much competition among the barterers for offices in which to carry on their work, and as bartering can be done on a big scale only in the great cities, offices have to be built high into the air, to make room for those who desire to engage in this occupation.

The professor, of course, may or may not be right; but any time that there is a demand for the removal of the Metropolitan Tower there will be men to do the work, even if the contract calls for the taking away of the building without tearing away a stone or knocking a speck of gold-leaf from the dome. If the development of the flying-machine should render bridges useless, the steel passageway to Brooklyn can be wheeled off to Africa as a plaything for baby elephants, provided enough money be forthcoming to pay the bill.

RAILROAD BUILT BY CHINAMEN.

THE Sun-ning Railroad in China, now nearly completed, is unique for that country in that none but Chinamen have been employed in any capacity in its construction, something that can be said of no other road in China.

It is being built under the direction of Chin Gee Hee, president of the railroad, who returned to China from the United States after about forty years' experience, some of which was as a railroad foreman and contractor. He has no engineering or railroad knowledge other than the experience gained while he was sojourning here in the United States.

He has the help of about one hundred Chinese foremen and laborers who came back from the United States, all with more or less experience in railroad construction The construction work commenced in the middle of 1906, and part of the line was opened to traffic at the beginning of 1908. The whole road is provided with telephone lines for despatching.

The president and constructor of the railway has never received more than a nominal salary of about $40 per month. The master mechanic receives $20; fitters, $7.50 to $17.50; blacksmiths, $12 50 to $15; engine-drivers, $12.50 to $22.50; firemen, $7.50 to $9; conductors, $12.50; brakemen, $7.50 to $10; ticket-sellers, $10; ticket-collectors, $7.50 to $10; gang foremen, $7.50 to $12.50; foremen carpenters, $20; and carpenters, $7.50 to $12.50, all per month.

Coolies receive 20 cents per day. Ten hours of labor constitute a day's work.—*Erie Railroad Employees' Magazine.*

SHAKY BANKS COMES BACK.

BY GEORGE FOXHALL.

How Railroad History Was Made When Bob Malloy Met with an Accident.

HAKY BANKS was not a good man to fool with on ordinary occasions, and there wasn't a man on the Western division who dared call him "Shaky" to his face. But he was shaky, nevertheless; everybody knew it, and he knew it himself. That's why his friends never gave him the nickname, and that's why his enemies daren't, for in the ordinary acts of life, such as a scrap or a lark, Shaky had muscles like a tiger's and the precise movements of a prize-fighter.

A fine figure of a man was Tom Banks, and as fine a fellow as ever eased steam into a greedy throttle, but shaky. In the flash of emergency some sort of nerve paralysis took hold of him, and his limbs became like the limbs of an infant. The same thing gripped his brain, and he thought and did the wrong thing whenever the thinking and doing meant property, or life, or reputation.

That's why Tom was on the extra list at Piermont, with mighty little chance of being called for anything but the way-freight on the so-called Scrap-Heap Branch.

Tom had a girl, or, more correctly speaking, Tom had had a girl. When it was first made plain to him that there was something wrong with his sand he had slipped over to Annie Dupont's house with his head down, for a man hates to shame his manhood in a girl's eyes

"Annie," said he, "I'm not the man for you, for you deserve a real man, and the best part of me is missing. You've heard what happened down on the Cañon Curve yesterday. It's only by the friendship of Alf Hardisty that I shall even manage to drag along on the extra list. I want you to have your liberty an' take a better man."

"And not a man in the world is there with courage like your own," said Annie, "that would come plain and brave in his shame to a woman. I'm your girl, an' proud of my man that takes the shame where there is no real blame."

She washed away his trouble with her tears and cheered him with the sunshine of her smiles.

But, after two years, when he had worked back onto a freight run and it happened again, Tom wouldn't kiss the tears away. He walked off with a face like stone, and there were two hearts in Piermont that were as near breaking as brave hearts can be—for always a brave heart nurses a grain of hope.

This time Tom had let a string of loads down the Piermont Mountain so fast that they came in with every axle-box belching flames and fumes, and the wheels on the rails only by the mercy of Providence. Tom had gone shaky. When he felt them slipping away from him he had made a wild pull with his left hand instead of with his right, and the left hand dragged wide open the closed throttle.

By the time the fireman got over and brought him back to earth, Tom had more momentum on those loads than any straight air in the world would have held on a four per cent grade, and they slipped to the bottom like an avalanche, while everything made for the sidings as fast as steam would let 'em.

"What was the trouble, Tom?" asked Alf Hardisty, the master mechanic.

"My air got away from me, Alf. The pump failed after the first grade."

"And then your nerve went wrong?" suggested Alf.

Tom nodded, and went on the extra list for the second time. Everybody wondered

why he didn't resign and try to make a living as a truck farmer. Some said it was because he hadn't nerve enough to flag an angleworm. Others said it was because he had so much nerve he was determined to make good.

Then Bob Malloy broke his leg. Bob made history when he broke his leg, because Bob handled the fast mail and express from Piermont to Cardover. It was just at the period when the Great Southern had to melt the rails to keep the contract. At length, they'd trimmed it down so fine that they had Bob hauling three mail-cars and two Pullmans over one hundred and twenty-nine miles of fair grade, with three stops, in one hundred and thirty-five minutes, and it was the general belief that no other engineer on the division could have done it

Well, Bob broke his leg. He broke it seven minutes before the flier was due. For two minutes Hardisty racked his brain, for one minute he swore fluently, and four minutes before starting-time he sent for Shaky Banks. There wasn't anybody else.

"You have one hundred and thirty-five minutes to make it in, Tom, and the same time to bring number ten back. You're the one to make 'em if nothing comes up. In any case, there'll be a man moved from the extra list to-morrow—up or off."

Alf and Tom had been kids together, but a master mechanic has a big job to hold down—and Hardisty was grim.

Tom nodded. He was grim, too. He tested his air and his valves, picked up his signals, slipped over the points, and streaked down the main line.

At Pearl City he was two minutes behind schedule, having been laid out by a draw. At Graytown he was five minutes ahead, and he put in the wait examining the check-valve, which had not been working as it should. He fixed the trouble, and pretty soon they were skimming along on the last leg of the trip as smoothly as steam ever moved steel.

"I guess we'll make it, Tom," roared Walt Sims, the fireman, straightening his stiff back at the top of the worst grade.

"I guess so," shouted Tom, smiling.

He cut off the steam and drifted down with a safe little back pull from the brakes. In five minutes the worst of the run was over, and they were scooting through a level cañon whose boulders were washed smooth ages ago by a mighty river.

They turned Cañon Curve with a little whistle of the air; and then, like a flash, Tom pushed the air over to the big hole and notched the throttle lever up high. They came to a stop on two running streaks of sand, five feet from a pile of ties across the track, backed by a hand-car.

From behind the hand-car stepped two masked men.

One walked to the fireman's side, and the other to the engineer's. Each of 'em introduced himself with just one word, "Up!" It has a peculiar little rising inflection, and when it's set on a hair-trigger and a forty-five bore it is wisdom to obey without undue loss of time.

That is what Tom and his fireman did. They climbed down on the fireman's side, Sims sullen, and Tom—shaking in every limb.

They ranged them side by side, while a third hold-up man went through the Pullman.

"When Charlie's rustled the passengers," explained one of the train-robbers to the other, "we'll make these fellows cut off the Pullmans and run the mail-cars a mile or two up the road. Then we can settle with the mail-clerks an' grab the registers without interruption."

"Sure," answered the other. "Here comes Charlie marching the train-crew in front of him."

Tom's misery was none the less because his plight seemed unavoidable. He saw his only chance slipping away after he had done all that man could do. But the maddening, discouraging part was this unnerving fear. He wished the men would lower their guns — those yawning tubes that seemed gloating over the life they were going to take. He was sick with dread lest one of them should go off.

A cluster of boulders was behind him, and he acted to steady his limbs by it. The third man came up. He was evidently the chief, and a man of a humorous turn.

"Hustle, boys!" he commanded. "This train's behind schedule already, and we ought to have *some* consideration for the gov'ment mails Rush the eagle eye—why, just take a look at him! What's the matter, Shaky?"

An electric thrill passed through Tom's flesh and blood at the insulting name, accidentally uttered. Like hot wine, his blood surged from his congested heart and found his nerves and limbs in one mad rush.

With a lightning stab, his hand flashed to a boulder beside him, and with all his enormous strength he bridged the distance to the bandit with a streak of white. So quick was the movement, and so fast and true the throw, that no man thus surprised could have dodged the missile.

Three pounds of boulder took the robber between the eyes.

Almost before it struck, Tom had leaped. With a strangling clutch and an irresistible backward pressure, he snapped the life out of the first speaker and dropped him to the ground, to turn on the other man, who was making a panicky exit from the scene.

It was a race in which Tom never started. This was his day for thinking and doing the right thing. He dropped to one knee, wrenched the pistol from the hand of his second victim, and fired twice. The first shot missed. The second took the runner just above the shoe, and he dropped.

"Come on, boys!" shouted Tom. "Rush these fellows into a car, and let's get the track clear. I've got seven minutes to make up in thirty-five miles, an' I'm in some hurry."

Tom flashed over those thirty-five miles as if he were going through a fire, and he was dead on time. He had depopulated the bandit community. When he reached home that afternoon most of Piermont was out, including a brass band and a drum-and-fife brigade; but you really couldn't hear the music. There were only eight moguls in the yards at the time; but four factory whistles helped 'em to make a noise.

Tom looked over the heads of the crowd, grinning; then he dropped to the ground and pushed a lane to where two little soft hands were waiting to fall into his grimy ones. He held them for a minute of wonderful tenderness; and then, because he couldn't trust himself, he turned laughingly to answer Alf Hardisty.

"How about the hoodoo?" asked Alf.

"Oh, say," laughed Tom, "I've got the Indian sign on that. When you see Trouble coming, keep cool, but don't stop to think till you've slammed him in the slats."

ROBBED AS HE CALLS FOR HELP.

"THIS is Nolan, operator at Highland I am being held up. I was sitting here a few minutes ago when a young man, wearing a light overcoat, came in. Had revolver. Held me up. Said he would kill me if I resisted. He's holding gun at my head now."

This was the message that Despatcher Gleisner, in the local West Shore terminals, received to-day as he was sending train-orders.

"Go on, I'm listening," he ticked over the seventy miles to Highland.

"He thinks I am sending regular messages," Nolan replied. "Told me to keep right on with my work. For God's sake send help."

With frantic energy, Gleisner called up the West Shore offices at Cornwall and Poughkeepsie, just across the river from Highland. By the time he had got Nolan on the wire again, police-squads were forming in both of these places to go to Nolan's aid.

"What's doing now?" Gleisner asked Nolan

"He's still here," came the reply. "He has no idea I called you up"

"I'm sending help," flashed Gleisner

"I'm still at work," ticked Nolan's key. "So is highwayman. Has his gun pointed at me. He says, 'Keep at work or I'll drill you.' I m pretty badly scared. He is now going toward safe. It is unlocked Now he opens it. He ransacks the safe, watching me all the while. He takes out the money and tickets, putting them in his pocket. He is walking back toward me. He says: 'Stay where you are. If you move in less than five minutes after I leave here you will be a dead man.' He backs toward the door."

"Hold him if you can," urged Gleisner

"I'm trying," Nolan said. "I am asking him to remember that he is losing me my job and am arguing with him. He says he is sorry. Can't hold him any longer. Now he's gone."

Then, at the end of five minutes, Nolan wired: "He's gone for good, I guess. I followed him out, but he got away in the dark."

The posse from Cornwall was soon at the station They found a white-faced operator and a safe that had been relieved of one hundred and seventy dollars, besides several bundles of tickets.

—*Brooklyn Standard Union.*

Never stop to argue when the Hog-head's in a hurry nor at any other time.—Diary of an Unhurt Cow.

How I Ran "The General."

BY WILLIAM J. KNIGHT.

THE TRUE STORY SERIES. The much-mooted question as to whether the plucky little locomotive which now stands in the Union Station at Chattanooga, Tennessee, a relic of the Civil War, was ever known by any name other than that of "General," is finally settled herewith.

The last word comes from Mr. William J. Knight, the engineer who actually held the throttle of the pursued locomotive during the wildest and most important race ever run on wheels. Mr. Knight is one of the few surviving veterans who took part in the Andrews's raid into the Confederate lines. He has given us a railroad man's version of the famous run, which we hope will clear up any doubts which may have been previously held by our readers.

In a personal letter to the editor of THE RAILROAD MAN'S MAGAZINE, Mr. Knight states positively that the engine he ran over the rails of the Western and Atlantic Railroad from Big Shanty to Ringgold bore the name of "General," and that any other name which has since been applied to it is erroneous.

The raiders anticipated Sherman by two whole years. Had they been successful the march to the sea might never have taken place. But they failed, and many of them paid the penalty of their daring with their lives.

TRUE STORY, NUMBER FIFTY-FOUR.

Thrilling Experience of a Handful of Federal Soldiers Who Took Part in the Capture of a Confederate Locomotive, Told by the Man Who Handled the Throttle.

I WELL remember that day in April, 1862, when I first learned that I was to figure in an expedition to capture a Confederate railroad train—an expedition which has since gone down in history as the most thrilling succession of events that ever occurred on rails of steel.

It was after dinner, during dress parade, when our colonel, after a word with Captain L. E. Brewster, stepped up in full view of us and said in a tone of command:

"If there is any man in Company E who knows how to handle a locomotive, let him step one pace to the front."

Thinking at the time that some interest-

EDITOR'S NOTE: All the stories published in this TRUE STORY SERIES have been carefully verified by application to officers or employes of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single copies, 10 cents.

ing work might be in store for me, I stepped forward, and on being told to report at headquarters immediately after dismissal by the captain, I resumed my position in the ranks until drill was over.

I was then a private in Company E of the Twenty-first Ohio Infantry, which, along with the Thirty third and Second Ohio regiments, had encamped at Shelbyville, Tennessee, as I was soon to learn, for the purpose of sending a secret expedition through the enemy's lines to tear up the track and destroy bridges on the Western and Atlantic Railroad between Chattanooga, Tennessee, and Atlanta, Georgia.

Most of the recruits and supplies for the western wing of the Confederate army were transported from Atlanta to Chattanooga over this line, and, therefore, it was the object of the Federal leader to cripple it and tie up all traffic as soon as possible.

At the colonel's quarters, where I hurried with Captain Brewster as soon as dress parade was over, I was introduced to James J. Andrews, a Kentucky scout, who at once unfolded to me his daring plan to capture a train at Big Shanty and run for the Union lines, leaving a trail of blazing bridges behind him.

Off for Big Shanty.

As we stood studying the map the scheme looked plausible enough. I readily volunteered to go and take my chances with the rest of the boys who had signed up. I was told to put on citizen's clothing, with which I was provided, and be prepared to meet Andrews and his party just after dark at a point south of Shelbyville.

I did as directed. That night twenty-two of us, in small parties, set out for Chattanooga in the rain. We got through the Confederate lines easily enough by telling the pickets we were from Kentucky on our way to join the Southern army; and arriving in Chattanooga three days later, we boarded a train for Marietta, journeying southward over the road we were planning to cripple.

We still traveled singly or in groups of two or three, pretending not to know one another, as the cars we rode in were full of Confederate soldiers, whose suspicions might easily have been aroused had we appeared to be too well acquainted.

The way they talked about being ready to eat up every "Yank" in the Union made it hard for us to keep from starting a free-for-all fight then and there; but we bided our time, however, and when we passed Big Shanty, where we were later to capture our train, more than one of us turned to pass the wink to his neighbor.

We stayed at Marietta that night, and at five o'clock the next morning, which, as I remember it, was April 12, 1862, we boarded a north-bound train for Big Shanty. We still traveled in little groups, studiously avoiding each other, though we knew that our time of secrecy was close to an end.

I sat with several companions near the front of the car next to the engine, and on looking around saw that the other members of our party had all taken seats behind me. It was not an easy matter to appear unconcerned, knowing that in a few minutes we might be called upon to battle for our lives against heavy odds, for we all felt that, if caught, we would be treated as spies and hanged without mercy.

"Big Shanty! Twenty minutes for breakfast!" finally came Conductor Fuller's call, and the train soon slowed down and stopped before a little one-story station that served as a ticket office and eating-house for the trainmen and passengers.

The moment had arrived for us to put our daring plan into execution. I say daring, feeling that I am not overstepping the bounds of modesty, for at that time there were Confederate troops camped close to the station, and picket lines enclosed us on every side.

Our party filed out of the car with the rest of the passengers, but, by a preconcerted plan, Andrews and I alighted on the opposite side of the train and made our way toward the engine, keeping out of sight as much as possible.

By the time we had reached the cab we found that the engineer and fireman had both gone to their breakfast.

Making a Getaway.

"We're lucky they didn't stop to shake down their fire and oil around," said Andrews, as we crouched beside the tender. "It looks as if we can get away without firing a shot. You run back and uncouple these forward box cars from the rest of the train, and we'll pull out immediately. We can make better time without the other cars, and the men can keep out of sight in them when we run through stations."

I hastened to obey, and, going back,

pulled out the pin between the third and fourth cars, so that when we pulled out we would leave the heavy baggage and passenger coaches standing on the track. A sentry was pacing up and down the platform within ten feet of where I stood, but I managed to dodge behind the cars and get back to where Andrews was waiting without his seeing me.

By this time our little party had collected near the open door of one of the box cars. At a nod from Andrews, who now leaped aboard the engine, I followed, while John and Alf Wilson, who was to serve as fireman, and W. W. Brown, my assistant, swung on from the opposite side.

The gage showed plenty of pressure, and a white feather was going up from the steam-dome.

"Into your car, men, quick!" called Andrews. "Let her go, Knight!"

The Throttle Open.

I jerked open the throttle. We leaped ahead like a shot. Looking back, I could see the last man of our party being hauled head-first into the freight-car, while out of the station poured a stream of passengers and trainmen, shouting and waving their arms in a wild state of excitement.

We soon disappeared from their sight around a curve, and ran down the track a couple of miles. Spying a crowd of section-men at work ahead of us, Andrews called out to me:

"Stop just this side of those fellows! We'll get their tools and tear up the track, while Scott cuts the wires!"

Andrews had no fear of a message being sent on ahead from Big Shanty to intercept us, as there was no operator there; but feeling that a message might already be speeding back to Marietta—the nearest telegraph office—Andrews thought it wise to be on the safe side. When we came to a standstill, Andrews went ahead to where the gang was working and ordered them to turn over their tools.

I could see that there was some argument at first, but they finally did as directed without any show of resistance, though they were probably greatly puzzled at his command.

After a stop of several minutes, during which the wires were cut and a rail taken up, we started on again. We were considerably ahead of the regular schedule, so, in order to pass a train at Kingston, which we knew was coming our way, we slowed down somewhat; but whenever we came in sight of a station, I would pull her wide open and go through like the wind.

It was amusing to see the amazed looks on the faces of the passengers who stood with their grips in hand waiting to board our train, when we shot by at lightning speed.

Andrews had planned to burn the bridge over the Etowa River, but fearing that we had stopped too long already, we crossed it and sped on through Etowa, where we passed a locomotive standing under full steam on a branch line that ran to an iron-mine. I suggested to Andrews that we had better stop and disable this engine in case we were pursued, but he refused to do so. It was there that we made our worst mistake, for had we carried away some part of the mechanism of the old "Yonah," Conductor W. A. Fuller and his party could never have followed us as closely as they did.

Andrews, unfortunately, did not know that on that very day General O. M. Mitchell had captured Huntsville, and instead of there being only two trains for us to pass, as we had figured, there were three times as many, the railroad having started all its rolling-stock south to prevent its capture by the Federal troops. We kept on speeding and loafing until we reached Cass Station. Noticing a wood-pile and water-tank beside the track, we stopped and replenished our fuel and water, as both were beginning to run low.

"I don't recollect ever seeing you fellows before," said the station-agent, whose name I afterward learned was Russell, when we climbed down out of the cab.

"What have you got in there?" he asked, pointing to the closed box cars.

Powder for Beauregard.

"You just drop a few sparks from that pipe of yours inside, and you'll find out soon enough," returned Andrews. "There's powder enough in those cars to blow you and your station into the middle of next week! We're hustling it through to Beauregard to shoot holes in Yanks with!"

"Oh, that's your lay, is it?" said Russell. "Hope you get through with it all right. The Federals ain't far off, and if they stop that peanut-burner of yours, you're pretty sure to find out what the inside of a prison looks like."

WILLIAM J. KNIGHT, PRIVATE, COMPANY E, 21ST OHIO INFANTRY, ENGINEER OF THE LOCOMOTIVE "GENERAL." NOW LIVING IN STRYKER, OHIO.

"We're taking our chances," said I; "but I'd hanged sight rather have the 'Yanks' get me than run into a head-on with a south-bound train. We've lost our schedule, and if we don't get one pretty quick we're going to have trouble. Haven't you got one we can have?"

"Sure," said the tank-tender. After searching his pockets, he finally located a soiled piece of paper, which he handed to Andrews.

As the men in the box cars had been ordered to keep out of sight until signaled to come out, Andrews, Wilson, Brown, and I got down and piled a good supply of wood on the tender.

After filling the tank, we pulled on up the track out of sight, where we stopped, and while John Scott, who did the wire-cutting, climbed a telegraph-pole and shut off telegraphic communication, the rest of the men, at Andrews's order, piled railroad-ties upon the track to obstruct any one who might follow us.

Reaching Kingston, Andrews repeated his tale to the station-agent about carrying powder to Beauregard, and gave orders to the switchman to let us in on the siding to wait for a south-bound train, which we knew must pass before we could proceed.

How We Lost an Hour.

For twenty-five minutes we fumed and fretted, watching the southern horizon for the smoke of a pursuing locomotive. When the train from the north finally hove in sight and pulled up beside us, our hopes took another drop, for there on the last car flag-signals were flying to show that another train was following.

We waited for over an hour while two more trains pulled by before we were finally given a clear track to Adairsville, and there was a general sigh of relief when we pulled out on the main line.

A short distance north of Kingston, we stopped to block the track again and take on a load of railroad-ties. Some of the men smashed a hole in the end of the rear car, and when we got under headway again, they dropped the heavy timbers one by one upon the track behind us.

The outlook now seemed considerably brighter, and our spirits rose perceptibly. Had we known then, however, that only a few minutes behind us, tearing along the rails, was an engine bearing Captain Fuller and a corps of Confederate soldiers armed with rifles, against which our short-range pistols were useless, we would not have felt so cheerful.

About four miles from Adairsville, at Andrews's order, we stopped again. Some of the men went back and tore up one rail. While the work of track-destruction was going on, those of us in the engine kept watch and strained our ears for sounds of pursuit, when suddenly we were filled with alarm by a low whistle coming faintly to us down the track.

"Every man back to the train They're after us!" yelled Andrews to the workers, who were busily battering out spikes and bending the rails. There was a wild scramble for the box cars, and as soon as every one was aboard, I opened her up and we sped on toward Adairsville.

Tied Up Again.

A freight-train, with signals showing another train behind it, was standing on the main line when we pulled up to the station, so we took the siding and waited with our hearts in our throats for the second section to arrive.

Fortunately for us, it was not long in putting in an appearance, but, on arrival, it stopped directly across the switch over which we must pass to enter the main line again.

Andrews hurried over to the conductor and asked him to pull up and let us by, but he refused, insisting that if we proceeded we were in danger of colliding with another train which was following, and which he was sure had already left Calhoun, the station ahead of us.

Andrews had it hot and heavy with this man for some time, but on promising to send a flagman ahead at every curve, the conductor finally consented to let us move on without our having to use force.

As soon as his last car had left the switch, Andrews pulled it open and swung aboard as we dashed out onto the main line.

"Keep her hot, boys!" he yelled to Brown and Wilson, who were hard at work heaving the heavy cordwood into the fire-box.

"Give her every ounce she's got, Knight!" he shouted, raising his voice above the barking of the exhaust and the roar of the wheels. "Death in a wreck is better than hanging! There's no time for a flagman now!"

We took one curve after another at top speed, ready for the worst, until we would gain a clear stretch of track and get a glimpse far enough ahead to see that we were not running into a head-on smash.

Courting a Collision.

Behind us, the men in the box cars were tossed about from side to side, momentarily expecting to leave the track and be hurled to destruction when we went into the ditch. Had we been but a few moments later, a wreck would surely have occurred. As it was, we pulled into Calhoun just in time to see the passenger-train for which we had so long been straining our eyes pulling out of the station toward us.

JAMES J. ANDREWS, OF FLEMINGSBURG, KENTUCKY, LEADER OF THE ANDREWS RAIDING PARTY. EXECUTED IN ATLANTA, GEORGIA, JUNE 7, 1862.

As soon as the engineer saw us he started back toward the depot, but when he perceived that we were slowing down, he stopped with his pilot-trucks on the frogs of the switch which opened into the siding, blocking the rails so that we could not get by.

Andrews repeated his powder story, but the conductor and engineer were both so angry at him for taking chances of a col-

lision that they refused to listen and would not budge an inch.

It looked for a few minutes as if Andrews would have to call out his men and move the train out of the way himself, but his demands were so positive that the conductor finally yielded and told his engineer to back off the switch far enough to let us by.

We now felt that if we could get to the Oostanaula bridge in time to destroy it the race would be won. More wires would then be cut, and other bridges burned without fear of pursuit, for we knew that General Mitchell was close to Chattanooga, and were sure that we could easily make our way to his forces.

As we had made the nine miles from Adairsville to Calhoun in seven and a half minutes, we felt that we had now gained enough headway on our pursuers to stop and cut wires and tear up the track. Scott was soon at the top of one of the telegraph-poles, sending the wires whipping down to the ground, while Andrews and the rest of the men began taking off fishplates and pulling out spikes.

How Fuller Followed.

They had not been long at work, however, when around a curve, only a few miles down the track, I suddenly sighted the smoke of a locomotive.

It was running toward us at full speed. I yelled to Andrews that we must be on our way.

Some of the men had pried loose the end of a rail, and in their haste were stumbling about, dropping their tools and getting in each other's way.

"Give me that bar, and all of you get aboard!" yelled Andrews, snatching a crow-bar from one of the men.

While the rest of the party scrambled back into their "side-door Pullmans," Andrews struggled and wrenched at the unwieldy rail, seeking vainly to bend it out of place and tear it from the ties.

Then, seeing that the locomotive was almost upon him, he dropped the bar. Giving me the signal to go ahead, he sprang for the hand-rail and swung himself aboard the last car.

With the fire flying from her drivers, I gave the "General" every ounce of steam in her boilers, and we tore ahead. I glanced backward from time to time to make sure that we were keeping out of rifle-range.

It seems that as soon as we pulled out of Big Shanty—as I afterward learned from reports and from Conductor William Fuller himself, when we met at a soldiers' reunion at Columbus, Ohio, after the war—he and his engineer, Jeff Cain, together with Anthony Murphy, then foreman of the Western and Atlantic Railroad shops, had started out after us on foot.

They ran until they met the section-gang whose tools we had taken, and securing a hand-car from them, they hurried on after us until they reached Etowa, where they boarded the "Yonah" and continued the pursuit. They had no trouble in passing the break in the rails beyond Cass Station with the hand-car, as they had rolled it over the ties and soon had it on the track again.

At Kingston, being unable to get by the two freight-trains which we had passed there, Fuller and his party ran around them on foot and, boarding the engine "Rome," which was standing on a side-track, started on again. As we had not stopped long enough to destroy the track again until near Adairsville, Fuller, who had now been joined by a number of Confederates, had little trouble in getting that far with the "Rome." Here he abandoned the "Yonah," and a little farther on, meeting another train we had passed, he made the crew back with him into Adairsville, where he secured an engine called the "Texas," and again started on our trail, catching his first glimpse of us when we stopped just north of Calhoun.

We soon lost sight of our pursuers, but, knowing that they were still only a few minutes behind us, we could readily see that if we delayed at any of the stations ahead we would be caught like rats in a trap.

Too closely followed to stop at Oostanaula bridge, which we had planned to fire, we sped on, dropping ties on the track behind us, but we were now going so fast that most of them bounded off when striking the ground, and impeded the progress of the "Texas" but little.

Fighting with Freight-Cars.

Every time we reached the end of a straight piece of track, we could see the Confederate engine tearing after us. Reaching the top of an incline near Resaca, we uncoupled our last car, and I reversed

and shot it down toward them. Engineer Bracken, however, also reversed and caught the car without its doing any damage to the "Texas." Then, pushing it ahead of them, they came on after us.

Again we repeated our tactics, but they again caught the empty car, side-tracking the two at Resaca, through which we ran at lightning speed. Their delay gave us a little more headway, and a few miles out of town we dared stop long enough to cut the wires again, fearing that if Fuller could manage to send a message on ahead of us, some station-agent would side-track us.

Not having time enough to tear up the track when we stopped for wood near Tilton, six miles north of Resaca, the men placed the rail, which we had carried with us from near Cass Station, diagonally across the track, wedging one end of it tightly.

The engineer of the "Texas" sighted it in time, and stopped his locomotive.

The other side of Tilton, through which we passed in safety, we filled our tank and took on more wood, while some of the men went back a short distance and obstructed the track to insure another full stop of the "Texas" out of gunshot range.

As often as we dared to stop, the men got off and cut wires and blocked the track, but not once did they more than get started to remove a rail before the roar of the "Texas" speeding toward us would reach our ears, and we would have to dart on at full speed. Once we halted in full view of a regiment of Confederate soldiers, but not long enough to give them a chance to come after us. We were constantly in sight of Captain Fuller's party now, and some of them tried to pick us off with their rifles.

In spite of the closeness with which our enemies hung upon our heels, however, Andrews had not given up hope of accomplishing the work he had set out to do, and was still intent upon burning the first Chickamauga bridge, twelve miles north of Dalton, though Fuller was quite determined that he should not.

On we sped, through the tunnel at Tunnel Hill, where I begged Andrews to abandon the engine, and either turn it loose back through the tunnel toward the "Texas," or send it on ahead for Fuller to follow. He would agree to neither plan, however, but ordered the men to set their one remaining car on fire and come aboard the engine. This they did, pouring oil upon its walls and floors, and we left it blazing on the middle of Chickamauga bridge.

But again luck was against us. It had been raining, and the fire burned so slowly that by the time Fuller arrived on the scene the bridge had not yet caught. He had no trouble in pushing the blazing car ahead of him to Ringgold, where he side-tracked it. Here the alarm was given to the local militia, some of whom boarded the "Texas," when it again started after us.

There is little more to tell. Wilson had thrown the last stick of wood into the fire, and the water was not showing in the gage. Soon we were only running twenty-five miles an hour, then twenty, then fifteen, and then came Andrews's command:

"Stop her, Knight! Scatter, boys! It's every man for himself now!"

History has recorded the rest. We were all taken captive in the woods by the Confederate soldiers, not far from where we abandoned the "General."

I was one of the eight who escaped from Atlanta Prison. Eight others, including Andrews, were hanged as spies, and the remaining six were exchanged.

HE WAS A CRIPPLE.

SEVERAL months ago an old railroad man out in Seattle was caught between the bumpers of two box cars. He didn't have many friends and none of them did anything for him. He went to a hospital. It took his last dollar to save his left leg, but he was hopelessly crippled. Turned out of the hospital, broke and discouraged, the old man could not find employment.

He sought relief in the courts. After a hard-fought legal battle, the old man was awarded $1,700. He didn't get all of this. His attorney had to have his fee. But what little he did have the old man put into the Illinois lodging-house. He couldn't make it go.

He was a railroad man, a maimed, useless railroad man, who didn't know anything about leases, rents, and law papers. He lost his place.

He saved a few dollars from the wreck, however, and said he would start afresh. Two months ago he leased a dingy little rooming-house. The boarders wouldn't come. The old man's dollars slipped away one by one, but he saved enough to end the hopeless fight of a railroad man who was useless and friendless.

The record at the city morgue reads as follows: "George T. Marshall, age about sixty years, committed suicide by taking carbolic acid. He was a cripple."—*Exchange.*

FATE JOHNSON'S FINANCIERING

BY SUMNER LUCAS.

An Episode in Frenzied Banking That Isn't Quite So Impossible as It Sounds.

"WHAT DO I DRAW NEXT?"

FATE JOHNSON, hobo, completed his seventeenth somersault head downward in the mud against the barb-wire fence. He reversed himself, clawed the Nebraska soil from his face and looked about him in the dark. The Chicago Flier was in the ditch.

Fate glanced over the wreck with a sort of proprietary solicitude for the particular Pullman from the roof of which he had just alighted. It lay on its side crossways of the track.

"Hit something," remarked Fate as he leaned against the fence and felt in his pockets for the makings of a cigarette. The wreck was in an uproar, but Fate, having little use for uproars from long experience, struck a match, shielded it from the stiff night breeze and puffed carefully.

The flare of the match showed him something caught on the fence-wires near him. Fate moved along the fence to investigate. To a hobo who has nothing, and everything to gain, Fate knew that he had added to his cipher of wealth. Gathering in the bundle, Fate started to circle the wreck and go down the tracks on foot, a thing sorely against his professional pride; but it was dark, and the wreck might be accepted as an extenuating circumstance.

Before he hit the rails he stumbled over another bundle. Picking up this one, he began to count the ties to the east. Fate had no particular destination except to get out of Nebraska. It was harvest-time, and work was too plentiful and insistent for Fate's daily comfort. A mile down the track he saw a dim straw-stack off to the left, and he turned toward it.

"Burning some," he said to himself as he glanced back at the glare of the wreck. Stowing his bundles away, he "hit the hay." In two minutes he was sound asleep.

Just at daylight the wrecker tearing by awoke him.

"Late," commented Fate to its ponderous crane. Then he stretched himself and in the gathering light proceeded to examine his newly acquired possessions. He unwrapped the first one and stopped to scratch his head.

"Baby boy! Seems I'm elected a perambulating orphan asylum," he grunted, as he looked at the unconscious infant. "What do I draw next—house and lot and mother-in-law?" he continued.

The next was one of the hammocks used in the lower berths of a Pullman to hold the sleeper's clothing. It contained a full outfit of expensive clothing, black frock coat, pearl-gray trousers, patent-leather shoes; with shirt, tie, soft hat, and other things to

match, also a small hand-grip containing a lady's toilet articles.

"Ah!" cooed Fate as from the inside pocket of the carefully folded vest he pulled a long seal-leather pocketbook. "Let's see who I am, 'The Honorable Boyd Hill Kingston.' And five hundred to the good in long-green, yellow-back fifties—and a draft on New York for—suffering Je-hos-safat! one hundred thousand dollars!" There were other papers that Fate Johnson, hobo, seated there by the stunned baby, examined with interest.

"Time to move, kid," he smiled. He proceeded to wash the mud from his face in the puddle formed by the night's rain and to array himself in his new clothes.

"Good fit," commented Fate as he looked himself over critically.

Picking up his other bundle gingerly, Fate, in all his glory, started for a town he could see some three miles to the south. To get to it he had to cross the track, which he did with his usual modesty by means of a gully and a culvert.

There was high scandal and various speculations in that town that day and for some days to come—in fact, it never quite died out—when an infant dressed in dainty clothing with but one blue leather shoe was found on the doorstep of the Bachelors' Club. The doorway looked prosperous to Fate, and he wanted to do the best he could for the boy.

Babies were one of the few things that had not come within the rather extended experiences of Fate Johnson.

Now, good-by to Fate Johnson, hobo; enter the alias, Hon. Boyd Hill Kingston, banker.

Traffic Center is a city somewhere between Chicago and St. Louis. That evening a rather gaunt gentleman in black frock coat, pearl-gray trousers, with a clean shave and otherwise adorned, and with his right hand bandaged in black silk, leaned over the register of the Palace Hotel, laid down a card and said just six words:

"Register me. Hand hurt. Dinner on?"

Ignoring the over-friendly inquiries of the bland clerk, Fate, with just a suspicion of haste, entered the brilliant dining-room, while the clerk wrote on the register, "Boyd Hill Kingston, San Francisco," and assigned him to the best suite in the house.

Later, the head waiter noted that Mr. Kingston had given the largest tip of the evening and had also ordered and eaten a most elaborate dinner. The news spread as only such news does—through the hotel, and the gentleman was rated accordingly.

Nor were they surprised next day to learn that the silent gentleman had bought the controlling interest in the private banking-house of "Davenport & Co." The price was said to be one hundred thousand dollars, on which he held an option.

But surprise did come when they learned the next evening that the generous gentleman had also acquired the controlling ownership of the State Bank, whose capital was five hundred thousand dollars with deposits of over two millions.

Surprise grew to utter amazement and the talk of the town, when, within three days, this self-same gentleman had literally bought every bank in the city. There was much talk in the papers of "the representative of Western capital, himself immensely wealthy, who has cornered the banking business of Traffic Center." The papers spoke

"TIME TO MOVE, KID."

with something like awe mingled with enthusiasm of his "breezy Western way of doing business, the 'take-it-or-leave-it, yes or no' methods so characteristic of life in San Francisco."

Then came the earthquake. But to all inquiries the gentleman was equally taciturn. He gave but one interview, which was spread over the front pages of the following Sunday papers, thus: "Sold out. Bought here."

Fate was having the time of his life. There had been a fierce business-war on in Traffic Center for two years which focused in the two big banks, the First National and the Second National. The first morning in town, Fate had walked into the banking-house of "Davenport & Co.," wasted no words, identified himself with certain papers, laid down his option on the bank's stock with a draft on New York for one hundred thousand dollars, and had taken immediate possession.

He signed all papers by merely touching the pen with his injured hand while another guided it. From "Davenport & Co.," where he was now czar, Fate had begun to make those financial moves that awoke the town. His fame spread by wire to all financial centers, and especially to Chicago. From "Davenport & Co.," he had walked into the State Bank, right into the president's private office and announced himself with:

"You own this bank?"

"Well—er—yes. Why? Whom have I the pleasure of addressing?"

"Control?"

"Yes, sir."

"How much?"

"Well, er—really, my dear sir, I hadn't thought exactly of selling. Have you an offer to make?"

"Half million."

The president and principal owner of the State Bank had considered a moment. Here was an offer really above the value of the bank, and a good chance to get out of the bitter fight then raging at its worst, and to get out with profit.

"I'll take it," he said.

"Immediate possession," said Fate as he wrote a cashier's check on "Davenport & Co.," for nearly all the cash on deposit in that old and staid institution.

In an hour the deal was closed and Fate reigned supreme in the State Bank as in "Davenport & Co."

With two million of deposit, over half in cash on hand, Fate then moved on the First National. He bought a fifty-five per cent ownership in the First next day, paying for it out of the vaults of the State Bank.

With the First, he now had over five millions at his command, and with this he bought the Second National for a million cash outright.

"Endless chain," remarked Fate, as he went to his bed Saturday night—the night of the fourth day.

Fate Johnson, hobo, now controlled something like ten million dollars, over one-third of it in cash, and owned all the banks in the city of Traffic Center. That ended the long and disastrous financial war.

Monday morning the news that the financial war was over in Traffic Center was known and approved in all the big financial centers of America. When Fate—beg pardon! the Hon. Boyd Hill Kingston; and Fate was very particular about this—when he was asked what his plans were, he replied in a word and a half:

"Consolidate'm."

He did so that day. Certain papers which should have gone to Washington Fate put in his pocket.

"Less trouble," was his verdict, after an hour's study.

The ending of the financial fight had a wonderful effect on the business of Traffic Center. Real estate rose from ten to twenty-five per cent. Business blocks, the leases for which had stood trembling on the outcome of the war, were promptly rented at a sharp advance. The nail factory reopened with a pay-roll of eight hundred men.

Fate loaned the flour mills fifty thousand dollars, and their doors opened to eleven hundred employees. Merchants wired for bills of goods held in abeyance, and doubled others. The huge Lake National Bank of Chicago closed a deal with the new "Consolidated Bank"—otherwise with Fate Johnson, hobo—and put two millions on deposit. Fate made loans freely, but always through his cashiers. The big man must not be disturbed with details.

Naturally he became a target for charity beggars. To all he gave a silent frown, and turned away all except one. When the Rev. Mr. Huntington mentioned "orphans," Fate jerked out:

"What's that?"

"We have one hundred thousand dollars pledged by Mr. Gotrox, of New York, for

an orphan asylum in Traffic Center, if we can raise another hundred thousand. We have fifty thousand already raised in cash her and the Gotrox money is in a New York bank ready for us the moment we can show our hundred thousand in cash here. But the time is up at noon to-day—and it is now eleven o'clock, Mr. Kingston—"

"All right," said Fate Johnson, hobo.

That settled the matter. The Gotrox money was forwarded by wire at Fate's expense, the "Kingston Junior Orphan Asylum Association" was organized, a site was bought for ninety thousand cash—which Fate generously gave as an afterthought —and the whole matter settled and under way within twenty-four hours.

Next day the babies began to come—first one, then by dozens. Fate paid the bills.

The four banks which Fate had cornered held between them over one million in foreclosed real estate. The sudden revival of business and confidence, supported by reports of more millions yet to come, the oiling of the wheels of trade, and the new steam put into every line, enabled the banks to sell their heretofore dead real estate and mortgages at a boom profit of nearly half a million dollars.

There were some croakers in town, but these timid and suspicious gentry with too many questions to ask were promptly frowned down as enemies to the prosperity which had struck Traffic Center.

On the tenth day Fate Johnson, hobo, millionaire, and benefactor of Traffic City, was calmly eating his dinner, when an excited gentleman, followed by the chief of police and a patrol-wagon full of club-swingers, rushed through the stately portals of the Palace Hotel. All doors were instantly guarded. A frontal attack was made on the dining-room. Fate looked up, and calmly went on eating.

"That's him! He's the scoundrel—thief —forger! That's him!" yelled the one and only original Hon. Boyd Hill Kingston.

Fate helped himself to the peas.

The chief of police stopped and looked at him in admiration.

"Say, you! You're wanted!" he managed to blurt out, a trifle disconcerted, and doubting which really was Kingston.

"Me?" calmly inquired Fate.

"Yes, you!" growled the chief.

"Guilty," murmured Fate as he finished his champagne and arose.

They locked him up—and there was excitement in Traffic Center.

It took a meeting of all Traffic Center's bankers, lawyers, and business men to save the town. The huge Lake National Bank in Chicago rushed a man on a special train with a million in cash.

But the mess was not so bad. The Hon. Boyd Hill Kingston was a shrewd thinker.

HE WANTED TO DO THE BEST HE COULD FOR THE BOY.

He saw his chance. He promptly authorized all that Fate Johnson had done. But just what on the whole had he done? Who was he? No one knew, and all hastened to the jail. Mrs. Kingston went with them out of curiosity.

They found Fate asleep.

He rolled over on his iron cot, sat up, and surveyed his callers sleepily.

"Whoever you are," began Kingston, "you're a daisy. You've raised Cain What did you do it for? You've signed and uttered enough forgeries to put yourself in the 'pen' till the sun cools. Tell us about it, won't you?"

"Talk!" thundered the chief.

Fate scratched his chin.

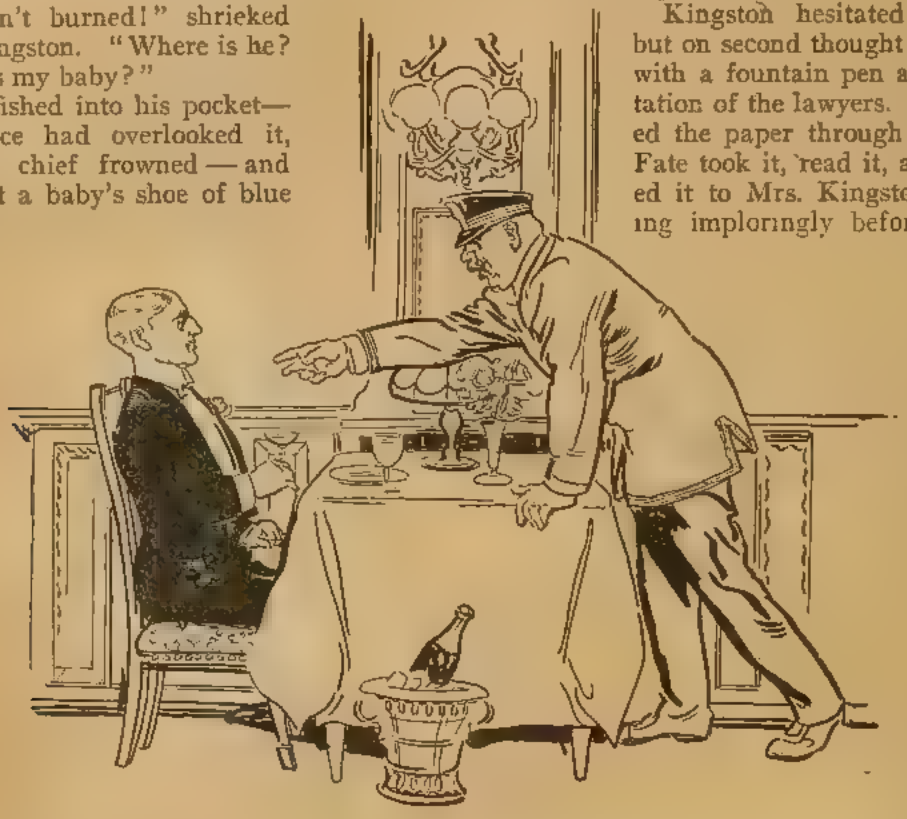
"Where've you been?" he finally asked.

"Me?" gasped Kingston. "I was hurt in a wreck in Nebraska. Been in the hospital with concussion of brain. My wife and I—er—our baby was burned there; and I thought my clothes and papers were."

"'Tain't burned," soliloquized Fate, regarding a crack in the floor.

"'Tain't burned!" shrieked Mrs. Kingston. "Where is he? Where is my baby?"

Fate fished into his pocket—the police had overlooked it, and the chief frowned — and drew out a baby's shoe of blue leather.



"YES, YOU!" GROWLED THE CHIEF.

"This its shoe?" he asked.

"Yes -yes! Where is he — where is he?" wailed the frantic woman, kneeling on the cement floor and reaching her arms through the cell bars. Fate turned away his head, rose to his feet, put his hands in his pockets, and made oration to Kingston:

"You ain't lost nothing. Nobody has. And you can't prove no evil motive. You let me out — and stand for that orphan asylum, and I'll tell w'ere your kid is."

"Yes—yes!" urged Mrs. Kingston.

"Yes," echoed Kingston.

"Yes," growled the chief.

"Yes," echoed the lawyers.

"Write it," said Fate, having had long experience.

Kingston hesitated at first, but on second thought he did so with a fountain pen at the dictation of the lawyers. He handed the paper through the bars. Fate took it, read it, and handed it to Mrs. Kingston, standing imploringly before him.

"You keep it for me, lady. Your baby is 'Number One' in the orphan asylum which yours truly founded."

That night a hobo mounted the blind-baggage of the St. Louis Express. "Fate Johnson, banker!" he chuckled to himself as he wondered how soon the brakeman would come along and ask him to pay or fade away.

HEAT VALUE OF COAL.

IT is interesting to note the heat value of coal in comparison with other fuels. The variation in coal samples, however, makes it impossible to fix an exact standard. The conclusions recently arrived at by the United States Geological Survey are based upon what is known as pure coal, or actual coal, or unit coal, meaning the actual organic matter which is involved in combustion, apart from other extraneous mineral matter. The following table furnishes a near approach to the relative values of the most common fuels: Bituminous coal, Easter field, 150 to 160; anthracite, 150 to 155; bituminous, Mid-Continental field, 142 to 150; lignite, black, 125 to 135; lignite, brown, 115 to 125; peat, 78 to 115; cellulose and wood, 65 to 78.—*Railway and Locomotive Engineering.*

Queer Railroads I Have Known.

BY STEPHEN CHALMERS.

IN the January number of THE RAILROAD MAN'S MAGAZINE, Charles Frederick Carter told about some antiquated steam roads on which he traveled during a recent journey in Europe, but it seems that you don't have to cross the Atlantic to make a study of old-fashioned railroads. South America and the West Indies are full of them. Roads that look as if they might have been built before the Flood are operated on the same principle as old horse-car lines.

Mr. Chalmers's experiences in the rickety coaches of slow-moving trains run by engineers who played checkers and pulled the "leber" ought to be something to make calamity howlers, knockers, and railroad jokers who scorn the excellent service they receive in this country, sit up and take notice.

Trains on a Certain Central American Railroad, Only Forty-Seven Miles Long, Are Frequently Two Hours Late. Humorous Customs of Jamaican Trainmen.

IN criticizing railways, one can generally command a sympathetic audience. The railway joke is as old as—railways. It began with the first loud guffaw when Robert Stephenson ran his "Puffing Billy."

In England, the London and Southwestern is the butt of the railway joke as the Erie is here. I have traveled on both the Erie and the L. & S. W., and I fail to see anything seriously the matter with either of them. In fact, I make bold to state that, because of the joke that shadows the escutcheon of these roads, each is particularly painstaking and courteous in its service.

There are some railways in this world alongside which either the Erie or the London and Southwestern would look like the king's special on coronation day.

For instance, there is a railway which runs from Savanilla, Colombia, up to Barranquilla, and maybe to Bogota. I went no farther than Barranquilla, for reasons which should be perfectly obvious.

The main good thing about this railway is that it saves you walking up a half-mile pier to the baked, waterless, iceless, lizard-inhabited scattering of tin-roofed human furnaces that is mapped as Savanilla, alias Puerto Colombia. The pier was built by the steamship companies, which is too bad, for one would have liked to credit the railway itself with one redeeming feature.

Making a Start.

The train loads at the head of the pier. It is made up of three or four obsolete compartment-cars with wooden seats and stiff, rusted, squeaky windows that you may raise and bake or leave down and choke from soft-coal cinders—just as you see fit.

When the train starts up the pier, although the footboard is festooned with native cargo-passers, it is some consolation to feel that you are off. But, alas, arrived at the dried-up town at the land-end of the pier, it is as if you had just backed into the terminus in a newly made-up train.

One day I sat stewing in one of the crazy wooden compartments, waiting for that train to start from Savanilla for Barranquilla. The depot was an oblong of cement paving—quite warm in the tropics—shaded by a red painted galvanized-iron roof. When the sun beats on that roof and the iron becomes almost red-hot, the shade it gives is something like that suggested by Dante's Inferno.

Nevertheless, there seemed to be some people who actually enjoyed it. I remember there were several Syrian pack-pedlers who were too wise to climb aboard that train before starting-time was announced. They sat on a bench under the galvanized iron roof and dozed away the happy hours of waiting in company with other slumberers.

I have wondered since if by any chance these people were not really overpowered by the heat, for when—at the end of time—the conductor yelled out in Spanish that all was ready for the start, he found it necessary to awake them and ask if they were planning to travel by his train.

Even after everybody was aboard, there was some delay occasioned by the fact that the stoker and the engineer were in the middle of an interesting game of checkers on the iron step of the locomotive. This may sound unconvincing. But the reader is assured by an eye-witness that it is not even exaggerated.

When the train at last started, it was as if some prehistoric monster that has been asleep for an eon of years awakes and limbers up its stiff joints. What snortings, creakings, groanings, hissings, and nerve-ripping flange shrieks came from that locomotive before it got under way!

The agonies of that ride up the valley, rumbling around uneven curves, laboriously toiling up steep grades and seeming to tumble, rather than roll, down dips, with the sun blazing in at one window this minute and glaring in at the other the next, as the train twisted, are too painful for detailed description in a world that is already full of sorrow and discomfort.

Zigzagging Up the Grade.

Of course, one associates this sort of humor with all things Latin-American. While admitting that this Colombian railroad was as much *opéra bouffe* as anything I ever read in a South American revolutionary novel, I must also admit that in South America I found, if not the best managed road, at least one that holds the palm for scenic charm.

I have never been on the Trans-Andean, and the Guayaquil to Quito road was not completed when I was in that region, but it would be hard to beat the magnificence of the zigzag from La Guayra to Caracas in Venezuela.

When you come out of your ship's cabin in the dawn, as I did once in La Guayra harbor, and stare up at the mountains which rise abruptly from the water's edge to a height of between seven and ten thousand feet, it is difficult enough to conceive how the town of La Guayra manages to stick on without being prepared to believe that a railway goes up the face of that stupendous mountain range.

Over the Panama Road.

Yet it is the truth, and it is also one of the greatest engineering feats ever performed in railway construction. I am not prepared to state what the rise per mile is on this single track, but supposing the height to be climbed is six thousand feet at least, and it takes at least two hours to get away with that six thousand feet, you have some idea of what the builders of that road had to contend with.

Starting from the depot at La Guayra, the train runs along the shore for a couple of miles to the west. Then the road and the train begin to climb. The face of the mountain is so precipitous that the track is one long zigzag all the time. Here one can literally speak of the engine turning around and meeting its own tail-end going in an opposite direction.

As the zigzag eats up the heights, a panorama unravels itself that staggers description. The mountain falls right from the wheels of the train into the sea thousands of feet below, and one's scalp creeps over the possibility of the train falling with it. The sea spreads like a blue cloth spotted with little ships and tufts of green and rocky headlands, and the view grows as the train climbs higher and higher.

When the shoulder of the mountain is reached, the locomotive's Herculean task is done, and presently the train rattles merrily down into an amphitheater of hills, in the hollow of which lies Caracas—the Paris of South America.

Most people will be interested in the Pan-

ama Railroad, which for years controlled the Isthmus—and the canal for that matter—running a steamer service, in conjunction, between San Francisco and Panama and from the other terminus, Colon, to New York.

This bit of railroad is only forty-seven miles long, and it has a stop about every three miles. What with stops and starts, delays and shunting among dirt-trains, etc., the passenger-train, which is supposed to make the forty-seven-mile trip in two hours, is sometimes two hours late.

Ever since the American entered the zone, the Panama Railroad is getting quite smart. The stops are as numerous as ever. There is Monkey Hill and Bohio and Frijoles (beans), and a host of others with picturesque names. The cars are as uncomfortable as ever, and no doubt the atmosphere is as redolent of *patchouli* and pink powder, than which the half-Spanish women love nothing better on special occasions—like traveling on the Panama Railroad.

Comic Elements of Jamaica.

The road runs almost parallel with the "ditch"; and as compensation for many discomforts one may catch an occasional glimpse of the canal with Uncle Sam's steam-shovels biting up the dirt and spitting it out again into trucks on a narrow-gage road.

A sad aspect of travel on this road, however, is the sight, all along the route, of abandoned locomotives, derricks, trucks, etc. When the French company went to smash and the famous Panama scandal raised its head, the works were abandoned as monuments for the scores of Frenchmen who were buried in yellow-fever graves.

One of the saddest sights I ever saw—impressive in its suggestion of fallen power—was a locomotive toppled over on its side by the old canal, rusted and twined with weeds that blossomed out of its funnel, where, I have no doubt, the birds had built nests year after year.

One would think that getting as near the United States as the Island of Jamaica one would fail to find any of the comic elements of primitive railroads. Yet I do not think I have ever had funnier railroad experiences than in Jamaica.

The Jamaica railroad is a fine piece of engineering. It runs from Kingston to Spanish Town at the base of the interior mountains, where it branches off into two arms, one running diagonally across the island to Montengo Bay in the northwest of the island, the other running similarly to Port Antonio in the northeast corner.

From the Port Antonio branch there is a little fork that runs to a place called Ewarton. It goes no further, for frowning Mount Diablo is there to defy, if not the engineer who built the road, at least the poorly lined pocket of the Jamaica government.

The Jamaica Railway was first run by an American company, under lease from the government. No doubt, the American company made money out of it and had no intention of doing anything else. Certain it is that the government was dissatisfied with something and the lease was not renewed. It then became the Jamaica Government Railway, and, as such, is no better than it was under the American company.

The officials, with the exception of a few who are high in office, are all negroes. The locomotive engineer is black beneath his soot, and the stoker need not burrow in the coal to disguise his race. The conductors are negroes and their efforts to carry themselves with fitting dignity are sometimes uproariously amusing to American tourists.

"Dis way foh de Poht Antony train. Be pleased to move swiftly, kind ladies. De train am about to staht!"

Between two stations on the Port Antonio line there are eleven tunnels through a very mountainous region. As at Savanilla, the cars are mostly of the compartment, wooden-box order, with windows that refuse to be closed when it so happens that you do not chose to leave them wide open.

When Sam Pulled the "Leber."

Before entering the first of the eleven tunnels you chose your own fate, either to be baked in an oven or asphyxiated with soft-coal smoke and cinders. Most people leave the windows open, with the result that they gasp for breath as they come out of one tunnel and, before the air is cleared of smoke, they are choking in the sooty blackness of another.

There are eleven tunnels in quick succession.

After the tribulations of the tunnels, the engineer likes to make some speed going down hill. One Sunday afternoon the train was late. The driver opened the throttle.

For twenty minutes that train fairly streaked down a gorge and spun around curves on two wheels, as it seemed.

The conductor, an amiable black with two front teeth missing, was walking along the footboard collecting tickets. The swaying and rolling and lurching of the train seemed to delight his play-loving soul. As he took my ticket, his feelings overcame him. He emitted a whoop and yelled:

"Open de leber, Sam! Open de leber!"

Sam did. I found myself holding on to my seat, wondering if again, as once before, the train was to miss points, bang into a train-load of bananas and precipitate me into the vest of a stout member of the Jamaica legislature.

Oddly enough, this incident happened near a grade where, years before, the couplings broke between the cars of a heavily laden train.

But the comedy of this railway exceeds its tragedy. I will never forget once during the rainy season when, having been penned up in a house in the mountains, I tried to reach Kingston. Allowing for a number of washouts, I made fairly good time as far as Spanish Town, where the trains of the other two branches were hitched on behind. Then the big train with the second-hand dromedary engine started across the swamps to Kingston.

This swamp used to be a lagoon. It was a splendid place for ducks but an awful place for a train during the wet season. Out of the morass the sunken waters seemed to have risen to meet their descending brothers from the clouds. Gray patches of water became more frequent among the green patches of rank growth. Every now and then you could hear the swash of the waters breaking away from the wheels of the lumbering train.

It grew dark, and still the train jogged along at an alligator's pace. The windows were up and we could see nothing through the rain-spattered panes but an occasional dismal light. Inside the compartments it was reeking hot—*reeking* is the only word.

Finally the train came to a standstill after a great swashing. When it did not move again some of us let down the windows and looked out. We couldn't see much, but such as we did see was mist and an expanse of water all around. It was as if a railway train had run on a reef in mid-ocean and we had no hope of anything but a stray sail or a desert island.

We were stuck there for hours. From the knee-deep footboard the conductor expressed his opinion of the engineer, and the engineer from his swamped locomotive retorted that he, at least, had "never been in the "porpus-house" — which I afterward translated into "pauper-house" or "poor-house."

Just what that had to do with a railway train run aground in the middle of a lagoon I never found out.

Another pleasant incident of almost appalling frequency on this road is the sudden stop of the train when it is mustering full speed. Then there will come a crash and a jolt, and the indignant voice of the black engineer will be heard shouting:

"Dat is de foolishest mule I ever see! I wouldn't own sich a mule to me name!"

Neither would the owner, save on paper, when he receives twice as much as the mule is worth from the Jamaica Railway.

NEEDED A STRONG MAN.

"THERE is one thing about the new equipment of the Western Pacific," says E. L. Lomax, "and that is the windows of the cars. They can be opened by a child.

"The difficulty in opening car windows reminds me of a story told by a theatrical manager who was featuring an Italian as 'Biancilla, the Strong Man from Rome.'

"One day, traveling from Kansas City to Omaha in a day-coach, the strong man and his manager were seated just ahead of a tall man with side whiskers. The man with the side whiskers evidently overheard the conversation between the strong man and his manager, for after a time he tapped the Italian on the shoulder, saying

"'Excuse me, sir, but are you not Biancilla, the strong man?'

"Biancilla admitted the soft impeachment.'

"'Is it true that you can lift two and a half tons in harness?'

"'Yes'

"'You can hold two men at arms' length without difficulty?'

"'I can.'

"'And put up five hundred pounds with one arm?'

"'Yes'

"'Then,' concluded the man with the side whiskers, 'would you kindly raise this car-window for me'?"—*San Francisco Call*

MASON, THE GRIZZLY.

BY CHAUNCEY THOMAS.

A Chase Over the Wild Western Prairies and an Unexpected Meeting.

CHAPTER XVIII.

After the Escape.

ITH daylight the wind hushed; the sand settled. Morning brought the fresh peace of Eden over the desert.

Flying toward the light, a sweating, panting man, with swollen, splitting lips and tongue and purplish face, with dried blood staining his skin, matted in his hair and stiffening his clothes, loped across the sands. His gait was weary, but never changing.

Miles away was a water-hole. This was his goal. In it was the only water to be had in this direction within fifty-four miles of the scene of his last night's crime.

Aided by the natural running powers of his Zulu-Indian blood, Salarado kept steadily, desperately on his way. To stop meant to stiffen; to run no more, to die.

Miles behind him but on tough, tireless mustangs and carrying water with them, came the living seven of the jury, led by the raging father of Star Eyes. One of the seven had a livid mark around his neck. Where the knot had cut into the skin the place was raw. His neck was stiff, his throat was sore, his head roared; but he rode like a centaur.

He had been cut down just in time. The jailer dead, the sheriff dead; their five comrades dead; the seven alone remained. They were terrible in their avenging anger.

To reach the water-hole first was to capture or to kill Salarado. Nowhere else was there for the hunted man to go; for nowhere else was there water.

Once let the seven get to the water-hole before Salarado, and the chase was ended. Then their quarry must either come staggering into their hands or dry and die insane with thirst, on the desert.

Hence Salarado ran and the seven rode, racing for the water-hole.

The sun rose. A yellow flood of light, cut by great streams of shadows, burst across the plains to the West.

Salarado reached a small hill that overlooked the water-hole at its base, and his back-trail for miles. Revenge and justice were thundering along his track not far behind, and Salarado knew it.

He paused on the tip of the knoll and looked back. A faint cloud of dust floated into the air ten miles away. Seven black dots for an instant bobbed against the sky. It was the coming jury. The ponies were tired. It would be a full hour before the horseman could reach the water hole.

For a few miles a ridden horse can outrun a man. Fifty miles makes the chances very nearly equal. For one hundred miles and over, the human runner, if he be a racer among his kind and has a few hours start, has little to fear from any pursuit that travels on unsplit hoofs.

The reindeer and the moose have divided feet. An Indian runner will catch a deer in one day, a horse in five, any living creature in thirty. Man has will-power, which drives him ever onward; he wastes not a unit of his strength. The animal has only brute force, and lacks the intellect with which to husband and to direct his powers to the best advantage.

All this Salarado knew; but he was handicapped by clothing, food, and weapons. The pounding of the six-shooter on

his hip annoyed him. If he had been unencumbered and in his full strength the chase would have been sport. As it was, the issue was doubtful.

When force leaves the muscles, cunning enters the mind. An hour contains sixty minutes; a minute contains sixty seconds; the law of gravitation was guessed in a second. Salarado had an hour.

To give his surging blood a chance to cool, Salarado walked down the hill to the tempting water. He found the water-hole only a yard across and a foot deep. It was crusted with alkali—yet it was water.

Moral restraint Salarado knew not; but physically his self-control was almost perfect. He knelt at the edge of the water and plunged his head into the cool liquid to his shoulders. His mouth and eyes were open. The water soaked into the dusty cavities of his head. But he drank not a drop.

When his breath was exhausted, Salarado raised his head. The breeze of the early morning, and the water, cooled his fevered blood and soothed his throbbing temples.

Nature is above the petty quarrels of humans.

Then slowly and with a physical delight that those crowded in civilization cannot even dream of, Salarado slowly sipped a pint of water.

Knowing that he would stiffen if he remained motionless except for a few moments, Salarado began to walk in a circle around the water-hole. He was hungry. A fifty-four mile run is a wonderful appetizer.

He slowly ate the food, chewing it thoroughly, that the murdered jailer had brought to his cell the evening before. He had carried it all those parched, weary miles behind him. When, where and how he would get more, he knew not. His tongue and lips were split and bleeding. His own blood from the smarting cracks mingled with his food, but Salarado did not notice it.

His eyes roved warily to the hill-top where he had recently stood. The blood throbbing in his ears made him restless and uneasy. It sounded like hoofs rapidly pounding the prairie sod.

From almost beneath his feet, a jack-rabbit sprang up and awkwardly limped away with swaying ears. Crack! A bullet from Salarado's six-shooter left the rabbit's head hanging only by a bit of skin. Salarado eagerly picked up the kicking body and carried it to the water-hole. Using the keen-edged clasp-knife he had taken from the jailer's body, Salarado quickly peeled the skin from the rabbit; but without cutting or tearing it, except at the feet and tail. He turned the skin flesh-side out and rapidly but carefully cleaned it, by means of the knife and water. With a few pieces of silk thread from his neck-scarf the same to which he so largely owed his escape—he tightly tied all the openings in the skin. He turned the skin fur-side out. He dipped it into the water, and brought it up full.

When Salarado had tied the neck-opening the improvised skin water-bottle held almost a gallon of the life renewing fluid. The taste would be bad; yet it would be water—water, ever delicious to a dusty throat.

All this was done without any loss of time. The jurymen were coming. Salarado did not forget that. Yet water he must have or die. It was seventy-six miles to the next water-hole.

Salarado took another drink, this time more than before; but he sipped it as slowly as he did the first. With all his clothing on Salarado crawled into the water for a momentary bath. It was a dangerous thing to do, but refreshment and stimulant he must have.

The jurymen had found his whisky-bottle empty and broken, twenty miles back. Salarado had stumbled and fallen in the darkness, breaking the bottle and spilling the liquor.

When Salarado rose, soaked and dripping, the water in the spring was pink. The diluted blood of seven men and one woman tinted it. As his muscles were stiffening a little and beginning to ache, he resumed his circle walking, glanced about, then at the hill-top. The seven were nearer.

Twenty feet away a dead horse. Salarado, holding his breath, laboriously hitched this mass, first by the forefeet then by the hind, to the edge of the water-hole.

Once more Salarado drank of the water, discolored as it was. The desert and privation take the daintiness out of a man. This time Salarado drank his fill. He gulped the water down. Those horsemen were coming.

Then he plunged the carcass into the

water-hole. The dead animal more than filled it. He thrust his knife into the dead animal's body. In a few moments the water was unfit to drink.

Salarado grabbed up the dressed rabbit and his water-bottle, and precipitously fled up the wind. Halting a moment, he cut the rabbit into several strips and fastened them to his cartridge-belt Meat treated in this way does not spoil in New Mexico: it dries and cures, even without salt, in the dry, germless air of the desert.

Here was food, and—what was of most vital importance—drink for Salarado until he could reach the next water-hole seventy-six miles away over a blistering waste of sand.

The horsemen—now only a mile away—must here turn back. They would soon arrive, parched—both men and horses—by their all-night chase through a sand-storm. They would find, instead of cool water, an undrinkable mess. Chagrin that sickens the heart would be theirs.

Salarado was pleased. Yet how he longed for a handful of arsenic. This metallic murder dissolves in water, and leaves it tasteless, odorless, colorless, and apparently harmless. With a little of this malicious metal, Salarado would have poisoned his hunters like wolves. But regrets were useless. Salarado had no arsenic. Kill the coming jurymen as he had their fellows, he could not. He could only turn them back.

If Salarado had left the water-hole undefiled, there his pursuers would have camped. Then, when well rested, they would have pushed on and overtaken him—unavoidably handicapped as he was with meat, water, and revolver.

As it was, however, having cut his trailers off from all water, it meant that they must here take the back-track at once, and ride the thirsty ponies until, one by one, they dropped; then humanely shoot them and push ahead on foot until the settlement was reached, or dead men as well as dead horses would disfigure the retreat. For the jurymen—when they came to the water hole—to attempt to go on after Salarado without rest or water would have been sure suicide.

By defiling the water-hole, Salarado had saved his life It made his escape now sure and easy. By doing so, however, he had committed another capital offense, worse than murder, even worse than horse stealing. To defile a water-hole, or—finding one so—to leave it polluted, was a deed that meant death by rope or bullet.

So ruled the terrible, unwritten, yet just law of the frontier in those days on the desert. Such a deed might mean a lingering death to a whole wagon-train. But what cared Salarado?

To freedom and safety, Salarado sneaked up a gulch and out of sight, just as the seven burst over the edge of the hill, and thundered down to the water hole—and to soul-strangling disappointment.

CHAPTER XIX.

Judgment by the Water-Hole.

SALARADO was free. He knew it. They knew it. Although still tired, he was refreshed. Food and drink, though limited, he still had. Seventy-six miles to the next water-hole was nothing for a runner like Salarado. There he could kill a rabbit, a prairie-dog, a coyote, or perhaps an antelope for more food.

A quick eye is the mother of luck—hence Salarado was always lucky. Telegraph-wires were unknown in New Mexico in those days He would be traveling ahead of the news. He had nothing to fear, either ahead or behind. Two more days and he would be safe in No Man's Land, the haven of all such as he. Over the next ridge from the water-hole he would sleep, protected from the sun, under the overhanging bank of some dried-up watercourse during the frying heat of the day.

Then through the cool evening and the cold night he would easily cover those seventy-odd miles at a steady walk up-hill and on the level, and at a sliding trot down grade, to rest him by changing gait.

For the first time in his life, under these easy circumstances, Salarado was not happy. A sickening reaction in body, mind, and soul was beginning to come over this heretofore pitiless man.

What was the use—the end of it all? What would he not give for rest and peace? For death?

He stopped. Should he turn back and defy those seven men? They would kill him. Good! But then it would seem as if he—Salarado—had been unable to get away; as if he had been run down and shot like a coyote by men, mentally and bodily his inferiors.

No. Salarado would go on.

Such were the half-formed ideas that were beginning to rise, like mist, from the soul, within the mind of this desperado, who when frenzied would wantonly attack anything. Mixing race-bloods produces strange results, mentally a hybrid, morally a deformity, physically a marvelous machine. Long dormant qualities, inherited from his white fathers, were beginning to whisper to Salarado.

Rounding a sharp turn in the bed of the watercourse, this soul-frightened man saw a dying horse lying before him. Thirst was killing it. From the slightly heaving form a buzzard rose and slowly flapped up the ravine. A magpie stopped pecking at the horse's eyes, and, refusing to leave, dipped and tettered, scolding noisily at the human intruder.

Within the shadow cast by the eastern bank, a few feet from the dying animal, sat a girl, a vision in gold and white—Star Eyes.

Salarado quailed. He knew her. For the first time the eyes of the animal met the eyes of the angel. The fiend was conquered. Superstitious fear, the self-loathing of a conscience-awakened soul, the bewildering, dazzling recognition of a heretofore unknown and undreamed of spiritual affinity, and other causes that the human mind and soul can only grope for, but cannot grasp, brought Salarado — mentally, morally, and in body prostrate—crying and pleading for he knew not what at the feet of the star-eyed.

On the girl the effect of the meeting was even greater than on Salarado. Exhausted by her insane wanderings on horseback over the desert during the storm, the heretofore unknown strain had brought the girl to a point where great changes, physical and mental, sometimes occur in those with a mind diseased.

It meant shortly either mental life or physical death. Something in the powerful, physical intensity of Salarado pervaded and overwhelmed the lost girl. Exhausted as she was, almost to the point of conscious dissolution, it put her body into harmony with the perfect mechanism of Salarado's tigerlike physique.

The atmosphere of his presence, the revived hope it gave her, stimulated her, thrilled her into new life. Having for the first time been dependent on herself—and in terrible danger, too—and knowing physical suffering for the first time, the breaking strain of desperately attempted logical thought all had left the clouded mind of Star Eyes in a semi-cleared but almost fatally paralyzed state.

The shock of seeing a bloody, disheveled, wild-eyed giant bound suddenly around the bend—bursting upon her like a devil—stop and fall, moaning and shrinking at her feet, caused a blinding, deafening flash to crash like lightning through the mind of Star Eyes. Then instantly all was as clear within as the crystal air without.

Salarado had brought to her reason as well as life.

The instantaneous, inexplicable dovetailing of these two souls put each in tune with the other, with the world and with heaven. He unkeyed the mental strain in her; she tightened the moral in him. The conversion of a soul, the awakening of reason in a chaotic mind, are things that cannot be explained by man. Great minds, even those skilled in the science of the physician, can only see and wonder. The petty ones sneer.

The mutual recognition of the soul affinity between Star Eyes and Salarado was instantaneous. After the first bewildering instant she rose to her feet, no longer a being verging on the idiot, but a pure-hearted, clear-minded woman, though swaying on the edge of death.

At her feet, clasping her knees with mighty, blood-stained arms, cringed a self-haunted man; praying, beseeching in abject terror and repentance for forgiveness and spiritual help.

For the first time the soul of Salarado realized its position before God and man. A moment before it had been Salarado, the buffalo, against the world. Now it was Salarado, the convert, for the good of man.

Star Eyes dropped a white hand onto the wet, black, bloody hair of the cowering Salarado, reeled, clutched at the air for help, and staggered.

Her shriveled throat and lips could speak no word. Salarado leaped to his feet, caught the fainting girl and gently laid her down on the sands, still cool in the shadow of the bank.

From the rabbit-skin water-bottle he poured a tiny stream of water down her throat. Unable to speak, but revived—though only a little—she silently thanked her heretofore savage rescuer with those great, deep, blue-black, starlike eyes. Now they were lit with the light of reason!

Salarado thought of Mexie — and shuddered.

Like a sleepy child, Star Eyes resigned herself to Salarado. He picked her up as he would a wounded seraph. With her in his arms, Salarado climbed the steep bank of the watercourse and stepped out onto the open prairie.

The cursing horsemen galloped to the hopelessly polluted water-hole, and had turned back in sullen silence, virulently cursing Salarado. They waited only long enough to pull—by means of hurled rope and saddle-horn — the carcass from the spring. Bail it out they could not.

On their return to the settlement a party would be sent at once, properly provisioned and equipped, to do that most important thing of desert-land.

The seven rode wearily to the top of the hill where Salarado had stood only an hour before. Shame-stung, they drew rein, and for the last time scanned the deserted plains.

Clear and crackling through the fresh morning air rang six shots from a distant six-shooter. Far away the hawk-like eyes of those trained plainsmen recognized Salarado. With a long, white, drooping object in his arms, he was running toward them.

Fourteen reddened spurs cut into fourteen shrunken flanks. Seven men with drawn six-shooters and poised rifles, yelling hoarsely in grisly triumph, charged down on the approaching desperado.

Salarado, with Star Eyes in his arms, and the seven vengeful jurymen met in silence at the water-hole. With the seven anger was lost in amazement. They were astounded. Salarado was unarmed. His six-shooter, his only weapon, he had cast from him after it had served in the first good cause it had ever known.

Salarado let Star Eyes slip to the ground, where she stood, leaning against his shoulder and supported by his arm.

A wondrous sight those two made, the center of a wondrous picture. Above—the clear blue heaven, flecked with faint wreaths of last night's storm; over all the awful silence and majesty of the desert. On seven wreaking, exhausted ponies seven men sat dumb and motionless. Above, a black dot in the crystal blue, hung the buzzard. A bunch of thirsty, curious, stamping antelope crowned a distant knoll. A coyote, followed by her cubs, sniffed uneasily along the fresh trail. The morning wind breathed among the curled buffalo grass.

Star Eyes broke the silence. To her father she spoke. The swollen lips would give forth only husky whispers.

Salarado gave her water. The jurymen looked on hungrily. The horses scented it and pawed the dry sand. To the worn-out animals another hour without water meant death.

With clearing voice, Star Eyes told her story; told how she had, in her delirium, stolen from her bed, and, saddling a horse, had wandered away before the storm, why or where she knew not; how Salarado found her; the change in him; the change in her.

She told, with scarlet features but defiant eyes, of her new-found but eternity-old love for him, and of his for her. She spoke of how, in a way unknown—dimly realized by them, but not by the rest—how Salarado had given her the blessing of reason; how she had cleansed his soul; how the old Salarado was dead; how they would never find the man they sought, although his body was before them now.

She reminded these men of their love, their almost holy devotion, to her—as pure women are worshiped nowhere else but on the frontier—of her unselfish kindness and love to them and theirs, a thousand times expressed in acts when they or their dear ones were sick or in trouble in former years.

She called upon each man in turn, personally and by name, to remember what she had done for him; how she nursed this one back to life from a bed of sickness; bound that one's wounds; how she had soothed and brought comfort to another and to those he loved; how her own hands had prepared their dead for the grave.

She pleaded, she demanded, that her father, the most powerful man in New Mexico, should keep his oath—they all had been witnesses to it many times—that he would give his all and himself that she, Star Eyes, his daughter—her mother and his dead wife again living in her likeness—might have reason, come by whom or how it may.

Salarado had given her reason—Salarado had given her life. Even now, but for this man, she would be lying helpless in yonder gulch.

All this the girl laid before the jury at the water-hole in the desert.

He could have escaped, she continued; and she showed them how. Salarado offered himself that she might live—live now in the light of reason. Salarado was a

changed man; hereafter he would live only to do good, to do right; to correct, as far as it was in his power, the wrongs he had done.

She asked that the life and liberty of her savior—Salarado, her lover—might be hers. Almost inspired by her new-born love—which satisfied her heretofore life-long heart-hunger—the girl leaned wearily against her lover's broad shoulder and pleaded his cause.

Star Eyes stopped. Silence came again. Like a living statue, Salarado towered, silent and without motion.

For a second time the jurymen debated upon the life of Salarado; this time without a word, each man within himself. What Star Eyes had said was true. Salarado had been safe and free. For her sake, for their sake through her, he was once more their prisoner, and of his own free will. The chivalry of it all, the knighthood of the frontier, appealed to those silent men.

Yet, fifty-four miles away were ten dead bodies—and one moaning woman with empty eye-sockets. True, some deserved their fate—yet the others had been innocent. Six had been murdered most brutally, even tortured before their very eyes.

They, too, had been bound by this very Salarado before them; and but for a rare accident they, too, would even now be lying, cold, stiff, and bloody, side by side with their five fellow jurymen.

Perhaps it was a trick. Yet, no. Freedom and life had been sure to Salarado. This man was not the Salarado they had known. The Salarado of old would have killed Star Eyes. This man—their once condemned prisoner—had proven himself to be first a demon, then a man. Should they now legally murder the living man because of the dead demon of moral insanity he had annihilated within himself, or should they—

Suddenly the juryman with the raw, swollen neck snapped his teeth, whipped out his six-shooter, and fired at the breast of Salarado. Instantly catching the movement, and knowing what was coming, Star Eyes, like a flash, stepped in front of Salarado and faced the weapon with her arms thrown back.

The revolver belched death. The bullet pierced the brain of the girl, and buried itself in the heart of Salarado. Star Eyes whirled. Her soft, white arms convulsively encircled the swarthy neck of Salarado. His great, dusky arms crushed the girl to his brown and bleeding breast.

The old savage light for an instant gleamed in Salarado's eyes. Then it died out, and into them came a look of unutterable pity, forgiveness, and calm, heavenly thankfulness. Like a tree Salarado fell, Star Eyes in his arms.

A sigh of guilty relief came from the hearts of the others; all except that of the dead girl's father. His maddened six-shooter instantly rattled five bullets through the murderer of his idol and Salarado.

From the saddle the body flopped to the sands. Its unmounted horse snuffed at it, snorted, and backed away. Stepping out of his saddle, his smoking weapon still in his hand and flinging aside his sombrero—the father knelt beside the dead bodies.

The fair, sweet lips—bruised with pleading—parted in the smile of a cherub, he kissed. With his hand reverently on the forehead of the dead Salarado, whose face was like that of a bronze god, the gray-haired man lifted his face and open eyes to the clear heavens. He prayed, not audibly—for the lips know not words to fit emotions that stir the soul in its depths—but he breathed in almost silent moans.

Kneeling thus, with one quick motion the stricken man fired the last shot into his own forehead.

On the hill above the water-hole they buried them where they died. The body of him who shot the lovers lay in a shallow grave—on which the cactus refused to live—till the coyotes dug it up and gnawed the bones. In another grave is the body of the father, the blackened, empty six-shooter still clenched in his hand.

In the third grave, deeper and broader than the others—now marked with a stone cross on which is rudely cut the letter "S," and the legend *Pax Vobiscum*—they laid two bodies, wound in each other's arms. One small, slender, and fair, as was Star Eyes; the other great, dark, and powerful, that of the bad man, the fiend, the desperado, the buffalo—Salarado.

CHAPTER XX.

An Answer to the Stars.

JUST at dark, a month later, a man rode into the camp of a white man and an Indian at the foot of Pike's Peak. By the

camp was a flow of mineral water, now famous as Manitou Springs. By the campfire the Indian was crouched in his blanket, silent as wood. Standing before the flames, his hands deep in his canvas trousers pockets, was a hale, portly old fellow—the white man.

Suddenly he turned and looked into the circling dusk. The Indian moved his eyes and twitched his nostrils, then relapsed into his apparent stupor. The sound of a walking horse came nearer and nearer; then the horseman drew rein before the fire.

"Good evening, pard— By all the gods and little fishes! If it ain't Mason! Why, man, you've been dead for ten years—"

"Ben Holliday! Well, well, well—got any supper? Dead men don't eat—How?" to the Indian.

"Ugh! Heap good," grunted the Ute without moving. Yet his eyes studied Mason keenly.

Supper was done—supper of deer meat, beans, bread, and coffee. Then the pipes. Long they talked. Holliday asked:

"Where have you been? We've not heard of you in years. Let's see, the last time I saw you was in Denver—remember the little lady? You were starting for old Mexico, were you not?"

"Yes," mused Mason, and Holliday wondered to which of his questions the answer was given, or if it applied to both. He smiled broadly to himself and chuckled silently in the darkness. Mason filled his pipe once more, rubbed his heated, smoking shins, and began:

"Yes. I went to old Mexico—still nosing after Montezuma's forgotten prospects. No luck of any kind for ten years. Then I stopped at a sheep ranch on the desert in New Mexico, and met—'er— From that I turned cowboy for two years. Texas, Indian Territory; lost all I had over a bluff in a Northerner.

"Tried mail-carrying over Berthoud Pass—no good. Near being hung in Hot Sulphur, where our old friend Texas Charlie whatever became of 'Weasel,' by the way? Shot? Thought so— Well, Tex died of lead poisoning there. Then, not long ago, I was again in New Mexico, in the 'Tear of the Clouds' country. Came from there here, on my way back to Denver Want to see what the old camp looks like—"

"Ever hear of Salarado down there?" asked Holliday

Mason eyed his old friend in silence.

"Why?" he asked.

Then Holliday told to Mason the end of Salarado. It was news to him. Rumor can outtravel a bronco. After a long, long silence — broken only by the Indian throwing new wood on the fire—Mason, for the first time in his life, told of the affair on Berthoud Pass. When Mason had done, Holliday said not a word, but—the night being clear — drew his buffalo robe about him and lay down by the fire. Finally he asked:

"Mason, if on the spire that day you could have foreseen the results of freeing Salarado—what would you have done?"

Long Holliday waited for his answer; but the man gazing into the fire seemed not to have heard him. In an hour both Holliday and the Indian were asleep. Mason raised his head wearily, and with hungry eyes looked far up among the stars. Then, as if in answer to a question, he said slowly:

"What would you have done?"

CHAPTER XXI.

An Indian Legend.

WITH the sun next morning, the night vanished from the plains and mountains; and from the speech and actions of the two white men and the Indian—but not from Mason's heart.

Holliday's time had almost come. Years of frontier exposure had gnawed at that hardy constitution and now his days were numbered. He had come to the healing iron-springs to find relief if not cure. Stronger now, he was off that morning for a week on a cattle-buying trip to the South. The railroads had come long ago, and had ruined his coach-line. His parting words to Mason as he shook hands from the saddle were:

"When you go to Denver go and see my lawyer, Judge France."

Then with a cabalistic laugh he galloped away. As his old friend went down the rocky trail, Mason saw coming up a ragged pack-jack followed by a man on foot. Evidently he was too poor to own a horse. On the pack-animal was a prospector's outfit, none too good.

He halted at the iron-springs for a drink and a momentary rest To Mason's quietly cordial questions he made little reply, but

admitted that he would cross the peak as he was bound for the other side—the side to the West. Then he moved on. This man was Bob Womack. Ten years later he was to give Cripple Creek to the world.

All that day Mason lay in the warm autumn sunshine and thought of his past life. Here he was now, a man of thirty-five, knocked by the world, ever climbing up only to slip back. He could not see where he had been at fault, yet something within himself told him that the fault was all his own. All day he was as silent as the Indian. Now and then each drank from the iron-springs. As the sun set, Mason watched in the East for the evening star. When it beamed at him, he said impatiently—perhaps to it, perhaps to himself, perhaps to the Indian:

"I am a *dziggetai.*"

"*Si, señor,*" grinned the Indian.

"That is Chinese for 'a wild ass.' What does a Ute buck know of Chinese?"

"It is Indian, *señor,*" persisted the Ute.

"Chinese."

"Indian."

"Mongolian."

"Ugh!"

They were both right. There is a kinship between the Mongolian and the Indian in tongue, perhaps in blood.

It was now dark in the deep ravine by the iron springs, but the summit of Pike's Peak still was warm with the departing light. The Indian pointed to it and said:

"Manitou make sign. Heap good."

"How?"

Then, there in the gathering night by the camp-fire, Mason listened first idly, then dreamily, then fascinated to a legend old as Indian speech. It fascinated, because in it—all unknown to him then—was the key to the Lost Mines of Montezuma. Acting ten years later, on what he heard by the camp-fire that night, Mason was to become a power throughout the West.

Looking long at the Peak, then saluting the iron spring gurgling away in the darkness, the Indian said in Spanish:

"Mason, I know you. Iron Hand was with Colorow when the quick young white man was caught and got away. Good. Heap good. And to his white brother now, Iron Hand will tell what white ears have never heard before. It is of this peak, this iron spring, the ascension of the Manitou, and his gold lost beyond to the West. Listen, white brother:

"An Indian stood upon the crest of the Snowy Range. Stone, snow, and silence were around him; nothing else. It was the Manitou. The Great Spirit looked from the eternal snows out over the plains and mountains. The heart of the Manitou was heavy.

"Clouds of dust floated like a thunderstorm along the shimmering horizon far toward the rising sun. The prairies were black with buffalo. Through the wild herds darted fleet clouds of coursing antelope. A herd of wild horses swept along with the easy swiftness of swallows. The mountain-forests were crowded with deer and wapiti. Trout flashed their spotted sides in the sunlight from a thousand streams and lakes. The great bear was lord of all, acknowledging only man as master.

"In the zenith shone the sun, never moving, never dimmed. All was good and fair to the eye over the plains and among the mountains of the land which the palefaces, some ages hence, were to call Colorado. The heart of the Manitou was heavy.

"All this had he made for his children, the red riders of the plains and mighty hunters of the mountains. But the prairie-riders slew their brothers of the mountains, and the mountaineers crept by night into the sleeping-camps of the plainsmen, slew them in the tepees, and stole their women and their ponies. The heart of the Manitou was heavy.

"Blood of his warring children stained his works, good and fair. Ungrateful, they had disobeyed him.

"In sorrow the Great Spirit gazed over the prairies and the peaks—and into the open sky. Here was peace. Here would he go.

"He gave the word. The voice of the Manitou echoed through the cañons. A mist arose and hid the earth—but the sunlight played upon the summits. With his tomahawk, the Manitou hewed out the rock and made an altar such as men and gods never had seen before. This altar the palefaces were some day to call Pike's Peak. It was his altar of ascension. He would leave the world to the warring brothers, but his gold he would take with him. The altar rose among the mountains, higher, greater than them all. At length it was completed. A mantle of snowy down, crusted with glistening jewels, softly fell from heaven upon it. The Manitou stood upon the summit. The heart of the Manitou was heavy.

"Far to the north loomed two great piles. Some day these were to be called by a harsh tongue, long and gray. Hidden there was gold and silver. Colorado contained more than the Manitou could carry.

"In the purple distance toward the warm south-land shone the twin mounds to be known as the Spanish Peaks. Beautiful they were in their snowy purity, but base. Beneath their virgin whiteness was nothing precious, only cold stone. They lured. They lied.

"By a growing chasm they stand divided even unto this day, and forever, until their atoms shall dissolve in eternity. But greater than these three was the altar beneath the foot of the Manitou. The heart of the Manitou was heavy.

"The birds, the animals, the reptiles, and the red children of the Manitou, war now forgotten, gathered round its base. They filled the earth as far as eye could see. The world was black with life. All was silence. A belated wild duck came whistling through the air, and sank into the multitude.

"Living creatures were without motion. The wind died. The waters hung limpid in the steep gulches. Leaves and grasses withered. Darkness fell. Through the stagnant blackness rose on perfumed wings the spirits of the dead flowers and kissed the feet of their Creator. Above all, arched the dome of heaven, hung high with multitudinous clouds of a thousand tints wreathed to welcome the coming Manitou. The air froze. The heart of the Manitou was heavy.

"The Manitou, the Great Spirit, the God of Nature and of nature's children was leaving them, leaving them alone. With sorrow the Manitou had hidden the earth beneath a black shroud, and had turned to the light above. As the black clouds hid his form forever, a great cry went up. The winds shrieked. Mountains, torrents, roaring with anguish, tore loose huge rocks and hurled them down upon the plains.

"Quivering to their hearts, the mountains split into fragments. The earth ripped ragged gashes across its face. With flaming swords the lightning slashed the sky. The crash of the tumbling thunder silenced all ears. Nature lacerated herself in repentant grief.

"The cry pierced the black clouds, outechoed the thunder, and reached the ear of the ascending Manitou. The lowering blackness writhed a hesitating instant, then floated high above the earth, changed to white, and, dissolving, disappeared forever. Never more will its shadow rest upon the plains and mountains of Colorado.

"Sunlight, warm with life, flooded the earth. All nature sighed in sorrow, but with relief forgiven. On a chariot of rolling vapor, dazzling white, drawn by the winds, rode the Great Spirit to the land of the setting sun. In the West hung a ball of fire, lighting with blinding splendor the pathway of the Manitou.

"In pity, the Manitou dropped a tear for his repentant children. It fell at the foot of his eternal altar, to the East. Here, this healing spring has flowed for ages; for red men and for white, for black, for yellow, and for brown, all children of the Manitou. To this day do these waters bear his name. This was his parting gift to the Indians of the prairies.

"As the Manitou rolled high o'er the mountain summits on his level path of sunbeams straight to the West as an arrow flies, for his mountain children he dropped all his golden treasures. These fell at the foot of his altar, to the West. This treasure the white man will some day call 'Wounded Waters.'

"Each day, just at sunset, the mantle of the Manitou floats over his altar, and reflects the treasure at its foot as if the gold were molten in a volcanic caldron far below. Then through the night from the mantle falls the dew, giving eternal life to the altar spring.

"The gifts of the Manitou are equal. They live forever. So long as the spring does flow, so long will the gold be found. Both for man, neither can be exhausted.

"The shadows are the children of the night. Every day at the hour of the ascension, at the setting of the sun, like wild animals shadows creep out of the ravines and form the dark secluded lairs of the rocks and woods. They slink across the plains and prowl with silent movements up the mountain sides to the summits. Here, with the twilight they watch the day kiss the world good night.

"The quivering sunlight lavishes one burning touch on the tip of the altar of the Manitou, lingers a belated instant, and is gone. Evening rises from the East, and spreads chilled darkness o'er the earth. With evening comes her sisters, starlight and moonlight, shedding the promise of light that his children may know that the Manitou watches while they sleep.

"Then the shadows and the moonbeams play together beneath the nodding trees. The Spirit of the Manitou pervades. His voice is heard in the rustling of the night wind as it creeps among the grasses, in the snapping brushwood, in the trinkling of the tiny waterfall throwing diamonds to the moonlight, and in the muffled rolling of the river.

"His sighs sweep through the forest and into the distant night. Thus is the ascension of the Manitou, his altar, his healing spring and his hidden gold kept ever fresh in the hearts of his red children."

The animal in the heart of the red hunter was lulled to sleep. A soul awoke. The poetry in the savage heart, unseen by day, shows as a point of light by night. No oozy pool is so small or foul but that when calm it reflects a star.

This was the legend the Indian told to Mason by camp-fire as they lay beneath the whispering pines. Far into the night the two lay watching the stars rise in the East, pass through the heavens, and go out of sight beyond the peak. One was dreaming of the past; the other of the future.

At the foot of James Peak was the Gregory Lode; at the foot of Gray's Peak was silver Georgetown; at the foot of Pike's Peak—what?

CHAPTER XXII.

A Lawsuit.

MASON arrived in Denver at midnight. The old frontier mining-camp was gone. Here was a city—"The Queen City of the Plains."

For the rest of the night he slept where his horse did—in the old Elephant Corral.

Before sunrise next morning—a stranger in a strange place that in his mind he had long called "home"—Mason wandered through the crowded, nervous streets down to the now walled-in bank of Cherry Creek.

He could only vaguely guess at the spot where fifteen years before his bookstore had stood. On all sides were buildings. The waste of sand along the creek had been changed into city lots. Nowhere was there a trace of the flood of 1864.

Something of a half-remembered emotion suggested that he sit there and smoke and plan anew. Here a friendly hand closed down on his shoulder.

"Mason! Well, where on earth did you come from!"

"Judge France," beamed Mason, arising and gripping the lawyer's hand. "Holliday told me to look you up. Suppose he thought you'd be the only man in these wooden gulches and brick cañons that I'd know. Saw him in camp down by the iron springs at the foot of Pike's."

"Marius brooding over a mighty lively Carthage, eh? How does Denver look to you?"

"Don't know it. Was trying to locate my old stamping ground; where I once sold books and dealt in gold dust—if you remember"

"Remember! Mason, no man would ever forget you—"

"By the way," broke in Mason to dodge the compliment, "who owns all this land about here?"

"You do."

"*Me?* Get out! I'm too near broke to rob my bronco of oats with which to buy a hotel bed. So it's rather a ragged joke—*comprendo?*"

"I'm not joking, Mason. This land is yours. For the past ten years no one has heard of you. Many thought you dead, some tried to jump your claim, but Holliday paid the taxes, and leased it in your name when it became valuable—and the court took care of the rest—at my suggestion, now and then," the lawyer added, modestly.

Mason closed his mouth and picked up his pipe from the dust.

"But how came I to own it?" he finally managed to ask.

"Remember how you gave back that bookstore to the pretty widow—after the books went down Cherry Creek, at that? Remember the deed she gave you informal, but good as gold. Holliday was a witness, you remember?"

"Yes," murmured Mason, vaguely. "Let's see, I'd forgotten all about that for years"

"But Holliday hadn't, you see. He put the deed on record and it's good to-day, but—"

"But what?"

"She's fighting it."

"Who?"

"The widow."

"Well, it's hers, isn't it?—Still—"

"Not by a long shot, Mason. It was not worth forty cents and a dead dog when

she gave it to you in return for that twelve hundred dollars in gold-dust for the books. But she's a stunner, though! Still in her twenties, she claims—but I doubt it, although she looks like eighteen yet, I'll admit—and still a widow.

"She came to Denver and began suit about a year ago; but I've managed to delay things with no trouble. Besides she's short of money. But so's Holliday for that matter, and the land's tied up—or rather was—and you dead or alive, no one knew. Now you have a clear case. We'll push it to a close when court opens next month."

"What's all this land worth? asked Mason, in a daze.

"Something over a million."

A stare was the only answer the smiling judge received.

"Me! A million!"

"A million—and over."

"Judge, leave me now, please. I want to think. But first show me where my old book-stall was. Over there? Thanks, Judge; thank you. I'll be down to your office—where is it? Larimer, corner of Fifteenth? Good—I'll be down there pretty soon."

"To lunch?"

"*Si*. I want to count all my grains of sand—I mean gold—first."

So the lawyer left him. Mason wandered over the pile of tin cans that marked the site of his last store. Here he filled his pipe—and gazed at the city about him. at the ground beneath his feet, at the sky smiling over head.

Mason thought it a perfect morning. He was as poor as ever—so he seemed to himself—all this belonged to others, to any one but himself; but the sky, the air, and the morning was still his. Unable to realize it all, he arose and said aloud:

"Take all things with a sense of humor and a knowledge of astronomy."

Just then the sun rose. Mason looked straight into its glory and laughed outright

At noon a man walked into Judge France's office. He carried himself with a fresh dignity, a new importance. The following conversation took place:

"Judge, you'd better drop that case, don't you think?"

"Drop it! Now, see here—don't get any raw fool notions in your head about—"

"Well, you'd better not fight it—"

"Why?"

"I've married the lady."

CHAPTER XXIII.

Woman, Wolf, and Wilderness.

LONG'S PEAK is on the northeastern edge of Middle Park. At its foot is Grand Lake. On the peak from its base, where the waters of the lake kiss its foot, far up the sides of where the clouds rest, grow the pine trees. Dancing across the lake come the waves; they are always restless, chafing and complaining among the rocks that guard the shores of this mountain lake. The waves tell strange tales of the dark Indian tragedies that lie hidden in the black depths, hundreds of feet below.

But at times the lake is quiet and the waves sleep, and only murmur drowsily in their dreams. Then the pines whisper to one another of the things they know, and writhe slowly in sympathy at the scenes they have beheld.

On the shores of Grand Lake, just at the foot of the peak, stands a ruined log-cabin. The logs are rotting, the roof is fallen in, and in winter the snow drifts fill the empty rooms to the eaves. Once this moldering cabin was a hunting lodge owned by one of the wealthiest men—Mason the millionaire.

His winter leisure was spent in forced social gaiety in Denver; in the empty, soul-destroying life of city pleasure; seldom elevating, always frivolous. To the lodge he came in summer, to hunt and fish. His family he brought with him; his fashionable wife, attended by a maid born in Paris; "Black Mammy," the negress of the Old South; and the little elf of a child, called Ruth.

The maid took care of the ennuied mother, who pined and complained for she knew not what, and vented her spleen on every one; even on little Ruth.

To Ruth this queen of fashion was a strange, beautiful goddess, a bad fairy such as Black Mammy told her of when she laid her sleepy golden head on her breast and was hushed to sleep; but this divinity was no mother.

Ruth often wondered if the tall, stately woman was an angel. Mammy had once shown her a picture of an angel. These thoughts Ruth told not even to Black Mammy, but only to her baby, her real baby,

the one made of rags that her dusky nurse had created for her.

Of the beautiful wax creations, works of mechanical art, which the stately woman had given her, Ruth stood somewhat in awe. To Ruth they looked, and acted, like the giver.

Between Ruth and her nurse were many secrets. The chief one was a little leather bag securely hidden beneath the child's clothing. No one except the wearer and the giver knew of this. No one ever saw it, for no one except Black Mammy ever dressed the child.

For this treasure, the great-hearted, hoo-doo-haunted African woman had given the earnings of seventy-seven days to a heartless charlatan. In it was a snake's tooth, a rabbit foot and the talons of a wild turkey. This charm against all evil Ruth had worn ever since she could remember.

Human-like, one day, Ruth became angered—with unreasoning, causeless, childish fury, perhaps inherited—against her guardian. No one loved her, thought Ruth to herself. She would go away, would go away up the wonderful mountain to where the clouds grew. There were the angels, oh, so good to little girls; and the fairies—who always played.

Black Mammy had told her so, and Black Mammy knew. But she was angry at Black Mammy. She would be revenged. She went to the edge of the lake—a forbidden spot—and threw into the dark water the priceless, all-protecting bag.

Terror-stricken at what she had done, the child fled to her nurse and begged her to come and get it back. As frantic as the child, the negro woman reached the rocky edge just in time to see the water-soaked charm slowly sink into the depths. Then for the first time, in fear-frenzied anger, the slave to superstition struck the little girl.

Recoiling from her first blow—and from Black Mammy, too—the heartbroken child fled to the woods, and disappeared among the trees, going straight up the mountain to the angels and the fairies. The negress groveled in prayer, beseeching mercy from the non-existing spirits of her mind.

Soon after this, Mason came down the mountain. In triumph he bore the grizzly skin of a timber wolf, his first one and the first kill of the season. There had been two of them, mates. One he had killed; the female escaped wounded on one forefoot.

Mason had followed the bloody tracks in swift pursuit but had lost them. While trailing the crippled wolf, he had fired at and wounded a doe but had neglected further search for her because of his eager chase of more exciting game. The skin of the dog-wolf was to be dressed, lined with costly silk, and made into a robe for little Ruth.

Mason loved his little daughter. The mother languidly suggested that the skin would do better as a floor rug. Pangs of something like disgust for his hollow life and remorse for neglect of the good, the beautiful and the true—which to him were personified in little Ruth—all that day had been gnawing at the man's soul.

Each hour the ache had grown more defined. With a shadow of disappointment not unmixed with contempt and anger—on his face Mason sought Ruth.

Ruth was gone. Where? No one knew. From Black Mammy came only half-insane lamentations as she raved about devils, evil spirits, and untold horrors and pointed to the mountain top.

Ruth was lost; lost in the forest that covers Long's Peak and stretches away for miles over the Rocky Mountains.

For an instant Mason was stunned. Then he raised his rifle and sent bullet after bullet skipping over the glassy waters, almost but not quite directly toward a group of cabins half hidden on a distant shore of the lake.

The ringing shots, fired as fast as human skill could work a rifle, and the spray-dashing bullets brought a man out from among the cabins to the shore. The mountains too took up the call, and rang and echoed with the mimic thunder of the gun.

A cry for help, oft repeated, went trembling faintly across the uneasy waters. Little Ruth was known and loved by every man, woman, child, dog and horse for miles. Ruth was lost.

Keen hunters who had trailed wild animals ever since boyhood took up the trail like Indians. Others, less skilful, hunted in all directions at random. Men on horseback dashed over every road and trail for help. A child was lost in the woods—woods through which prowled and slunk wild animals, dangerous even to armed men. Night was coming on.

Some souls are like some ears; dull to finer things till a blow shall cause the tangled threads of feeling to unravel and

let into the inner part emotions heretofore unknown.

What an hour before had been a stately, living statue, was now a woman—a mother. Now she was kneeling in silent prayer, now raving in wild grief, now cursing herself, now staring before her at nothing. Mason, hard as frozen iron, gave quiet, clear-cut orders.

On the shore of the lake, not far from the rotting cabin, is a huge rock, hurled ages ago down the mountain-side and into the lake. On the tip of this stood a woman, now truly queenly. Her long reddish, golden hair was flying in the evening breeze, which was just beginning to sweep down the peak and out over the waters of the lake.

The white summit of the peak was sparkling like frosted silver, in the evening sunlight, against an eastern sky of the softest blue. At timber-line the purple vapors of a mountain evening were beginning to gather among the trees. Like a Titan statue in colors seemed this queenly mother on the rock.

Slowly the blue vapors left the trees, floated into the darkening air, and shaped themselves into the form of a child with its baby arms folded across its breast, and with its face uplifted to heaven toward which it was slowly rising. As the sunlight glorified the cloud, it took upon itself living tints. The flowing curls turned to gold, and the robe was white. The cloud, thus wreathed by nature, was a vision in the blue evening sky of little Ruth.

Suddenly the white robe was blotched with scarlet. The form writhed and squirmed; became more ethereal, all was white; and the now angel form had a pair of snowy wings. Slowly the vapor arose above the summit, slowly it spread its white pinions, slowly it outstretched its arms in a farewell kiss to the spellbound statue below. Then it disappeared in the transparent turquoise of the evening air.

The Western sky was overcast. It was dark on the waters of the lake. Motionless on the rock the queenly mother stood. Suddenly in the clear mountain air, on a bare point of rock far up the mountain-side little Ruth stood forth. This was no cloud, it was Ruth herself.

A single ray of sunlight pierced the black clouds in the West and lit up the lost, fear crazed child like a halo. The hunters saw her, too. With a shout they all started for what is to this day called the Rock of Ruth. The wild baby, frightened anew by the voices, turned and disappeared into the dark aisles of the forest.

A woman's shriek chilled through the night. It was answered by the distant cry of a panther. The echoes took up both cries, mingled them into one horrid sound, and sent it quavering from crag to crag through every glen. As silence came once more, the soul-freezing howl of a wolf, a cry of suffering and of revenge, again made rasping chaos of the evening stillness.

Search was useless. All was darkness. The placid lake reflected not a point of light, for the stars had draped themselves in cloudy blackness.

That night the snow came. All through the night the mother's cries were answered by the yells of a panther on Long's Peak. The wolf was silent.

One little shoe, a blood-rimmed hole worn through the sole, was all of his baby Ruth that Mason, after days of search, laid in the lap of the now awakened mother.

One day, a hard faced man with the desperate, hunted look of a criminal, came to Mason and told him of a fair-haired child held captive by an old Indian woman who led the life of a hermit, a diseased outcast from her tribe, banished to die alone in the wilderness like Hagar.

The man asked for blood-money. Mason leaped upon the human brute, but, weak from suffering, his attack was worse than useless. The man fled, never to return. Far and wide he was sought by men with ropes at their saddle-horns; but he was never found.

Black Mammy had vanished. The last seen of her, she was kneeling on the edge of the lake where Ruth had cast in the priceless charm; kneeling with her black, outstretched arms raised to the little girl as she stood, sunlit, outlined against the evening sky on the point of rock. The waves often whisper strange tales of what they, and no one else, know.

Where was Ruth? Mason's millions and his mind and heart centered on this alone.

CHAPTER XXIV.

In the Mountains.

WHEN Ruth fled up the mountain, smarting under the heretofore unknown insult of .. How she was going

straight to the home of the fairies up in the beautiful sky. No one on earth loved her, she said in her childish heart—and, perhaps, truthfully—except Black Mammy.

To this little girl, for the time, the negro woman was the world; and now the whole world abused her. Soon, however, the baby fell over a root, and struck her tender cheek in the same place where it was yet bruised and aching from the blow of her nurse. Her precious bag was in the lake

This must be one of those ugly black things which hurt and sometimes eat little girls when they are naughty, so Black Mammy had said. With a shrill shriek the baby arose, and, endowed with the false strength given even to the grown by fear, clambered up the rocks and through the tangled underbrush with frantic haste.

Often when a man—a leader among his kind in civilized life—becomes bewildered in the labyrinth of the woods and mountains, in a few hours his mind, under the awful pressure of nature at such a time, becomes unbalanced, and he rushes headlong in all directions. In a few moments little Ruth was a wild animal, bereaved of sanity, and guided only by the animal instincts which are intuitive in the young of all creatures, those of man not excepted.

Endowed with new-found strength, Ruth climbed the mountain with a rapidity impossible under other circumstances, and fully as fast as could a man. Impediments which to a larger frame would have been impossible were easily passed through, or under, by little Ruth. Under fallen logs she crept on all fours, and through the interwoven underbrush close to the ground she went like a rabbit From far below came the sounds of pursuit.

Once, indeed, did Ruth's abnormally sharpened ears catch the sound of approaching footsteps. Hiding behind a rock, she saw her breathless father pass within a few feet of her. When he shouted out her name in a voice heard a mile away, the child crouched to the ground like a fawn. When he had passed on along the mountain-side, but was still in sight, his back turned, Ruth darted into a thicket and noiselessly made her way up the steep incline, stopping now and then to hide and rest when she heard the noise of a searcher near.

At last they were all below her. For a while she climbed up, always up, through brushwood impassable for a man. Frightened and wounded animals always run uphill. Why? No one knows

Suddenly Ruth reached a clear spot on the edge of a precipice Below her lay the lake and the smaller mountains Stepping with the assurance of a mountain goat out to the very edge, she nimbly climbed to the tip of a projecting crag. Above her hung the cloud, but Ruth saw it not.

Here they saw her last. Far below in the bluish depths of the evening air Ruth saw her mother. For one fleeting instant reason returned. She uttered a cry for her mother and toddled on the edge, about to fall hundreds of feet to the now black rocks below; but the horror of it all instantly banished reason, and the little girl was an animal again—cool, sure-footed, and keen with the guidance of instinct.

The joyful shouts of the hunters reached her ears. Like a lamb before the dogs, she turned; sprang down the jagged point of rock, and darted up the timbered slope.

Night was coming on. When it is dark in the village it is still light where Ruth was. Twilight loves to linger on the mountain heights. For an hour Ruth had heard a creeping sound, slowly stealing upon her. At times it was behind her: at others above her, or to the right or left: but usually above her.

As she darted from the point of rock and ran beneath the shadows of the pines, a great yellow cat bounded away from her up the mountain. Fearing nothing—for in humans instinct is never perfect—and dimly recognizing an exaggerated likeness to the house-pet of Black Mammy, Ruth scrambled on after the panther, calling:

"Kitty, kitty—pretty kitty, I won't 'urt 'ou."

The panther stopped, sprang into a tree, and snarled through its teeth. Ruth ran beneath the limb and reached up her baby arms. Then from the beast came the screech that the mother and hunters heard.

With this horrid cry the cowardly brute leaped from the tree far out into the concealing undergrowth. Disappointed and aggrieved, and more lonely now than ever, Ruth climbed on up the mountain.

The fairies and the angels were now forgotten. Instinct, that of a young animal, alone ruled her mind. The air was becoming cold. Strange shapes were appearing and disappearing here and there before the child's glassy eyes

Her breath came in quick, short gasps.

Her foot was hurting her, it was bleeding. She pulled off her shoe and threw it over a cliff. A faint remembrance of the charm and the lake-edge was called to her mind; with it came the horror and the terror that possessed her then.

She stood grasping a bent twig for support. Letting go, it rebounded and struck her injured cheek. Again that blow! With a pitiful cry the child made frantic pace up the rocks, her bare foot leaving bloody tracks behind.

A plaintive cry, child-like in its pleading, complaining treble, almost an echo of that of Ruth's, came from below her, not far distant. Savage nostrils were hotly sniffing the bloody little footprints.

Faintly up the mountain came a cry of anguish from the distant depths. The voice and tone were strange to Ruth; she heard them not.

Every muscle aching, chilled to the bone, and reeling for a sudden want of sleep, the lost baby staggered into a thicket and against a fallen log. This log had lain here for fifty years. Once it had been a mountain king for a century; but it was now decayed; and the black ants had eaten out its heart till the log was a mere shell, cut through in places on the underside.

Unable to get under the obstruction, and lacking strength to clamber over, Ruth felt her way along it. Feeling slowly in the gathering darkness, her little hands found a warm, hairy mass. It was a deer, sick from a bullet-wound, and helpless because of the paralyzing fear caused by those childlike cries from a savage throat so near.

Freezing, half naked as she was, little Ruth crowded close to this warm body lying beside and partly beneath the log, hesitated a moment, then crawled close in between the doe and the arching log. With a sigh of relief, grateful for the warmth, the baby snuggled close to the wounded animal and slept.

The wounded doe, her wildness overcome by suffering, their mutual danger, and an instinctive knowledge of coming death—the chill of which was already thickening her blood—was thankful, too, for the presence and the warmth of the child.

Two days before, the doe had returned to this very clump of bushes to find her fawn, hidden not long before with all the cunning of a wild mother, gone. In its place only a mass of bloody leaves, while great claw marks scarred the log. The keenest of noses told her that the yellow murderess still lingered.

One lacked a mother, the other an offspring. In the night Ruth awoke. The deer was trembling. Two lurid balls of greenish yellow fire burned a dozen feet above them. Ruth, hungry, and with every nerve stinging with pain, began to cry. At the sound of the human voice, again did that horrid screech of the panther echo among the mountains. A dark, supple form slipped noiselessly as a shadow from the limb overhead and disappeared, yet hungered near. Then faintly through the night the cry of a heart-torn woman came quivering from the airy depths.

Finally Ruth fell asleep. The blood-sapped deer was chilled to the heart. Both were cold. The wind came up cold and biting.

Around them in slowly narrowing circles a prowling, crawling form tracked a spiral in the snow, with the deer and the baby as the center—and the end. The odor of a human being still held that fanged danger at bay; but the night was almost gone, and for two days the panther had not eaten. Her last meat had been a fawn in that very thicket.

Daylight came. Through the air from a dark pine-tree, like a curving ray of sunlight, flashed a yellow snarl. With a death cry—low, pleading, gasping—the deer bounded into the air with the panther on her back. What followed is not for human eyes, yet Ruth saw it all. Motionless, securely hidden in her still warm bed beneath the log, the baby watched this world-old tragedy of the woods.

The dark green trees, the gray deer, the yellow panther, with dripping jaws; the far-away, dawn-obscured background of the purple mountains; the molten silver of the lake in the dusky depths; the rosy-tinted, glittering peak above—all made a picture seldom seen and never to be forgotten.

Other eyes hungrily watched the kill. Far above among the rocks a wolf looked down. Three of her footprints in the fresh snow were perfect; the fourth showed the marks of a bloody, shattered bone and a dragging foot. The hungry wolf licked her own blood from the frozen paw, now hanging to the jagged stump only by a half-gnawed sinew.

Gorged to the utmost, hastened by fear of the child-seekers coming up the moun-

tain, the panther—with a mass of venison in her mouth—lightly and noiselessly bounded away to her young in a cave across the gulch.

The hunters never found the dead deer. Ruth crunched wide-eyed beneath the log.

CHAPTER XXV.

A Little Child.

IN the city it was nearly midnight. The Christmas bells were singing in the frost, eager to peal forth "Glory to God in the Highest."

The year before one of the palaces that grace Capitol Hill of Denver had been lit by a hundred lights. In the great hall there had been a silver spruce that reached from polished floor to gilded ceiling. Here had danced the wealthy and the gay of Denver. Up near the roof, in a dark room, a portly negro woman had been lowly singing a feverish, neglected baby to sleep.

On the dancing floor that night the giddiest of the gay and thoughtless crush had been the mother. That was a year before.

This night the pile of gray stone was dark. Only from one window came light—a window near the eaves. Here the wavering light told of a fire dancing in a grate of an otherwise darkened room.

In this room, on a wolfskin rug before the open fire in Ruth's room lay a woman. Her form was queenly, but broken. The tawny hair—not unlike that of a panther—now lusterless, was lined with silver here and there. The eyes were red, but dry. They ached. Wealth she had, and what wealth could buy, but not happiness.

On the now shrunken neck was a string of pearls. Once they had graced the breast of a doge of Venice. Before the woman, between the stiffened ears of the ghastly, leering, stuffed head of the wolf, was a jewel-box.

In it was a baby's shoe—soiled, torn, and weather-beaten—with a dark-rimmed hole through the sole. The palace was hers. The world had been ransacked to adorn it. The priceless scrap-pile of five continents was hers—yet she grieved.

From the frozen street below came a scream. Through the icy air it sounded clear and cruel to the silently moaning woman, lying on the gray hide before the fire. It was only the cry of a laughing girl as she slipped intentionally on the sidewalk and not unwillingly fell back into her lover's arms.

To the childless mother above the laugh was the screech of a panther. She tore from her neck the string of jewels. Pearls rolled over the floor like marbles. The one remaining in her hand, the largest—a gem once the wonder of a Venetian court—this soul-wrung woman ground between her teeth, and broke both jewel and teeth! What cared she? Had not savage jaws crunched a thing more precious?

On the frozen slopes of Long's Peak that night stood a gaunt she-wolf, dying of hunger. With the others of her kind she could not hunt; she, a cripple. She must hide, alone; or serve as meat for the famished pack.

To her old den in the rocks, far above timber-line, she had returned. Many days she had been away. In the den were the frozen skin-covered bones of her cubs. She ate them. Two months before she had seen her mate die. Wounded herself, unable to crawl, spring, or run, she had seen her young slowly starve.

Desperate with hunger for herself and young, she had once painfully dragged to the den the skinned carcass of a male wolf and the torn remnants of a doe. On this they had lived. When it failed she left on three feet in search of meat. The cubs starved and died.

To-night she had climbed the heights to the den to die.

Over the top of the white peak slowly rose a burnished shield. Set it was in a field of darkest blue, studded with stars, framed with the softest of black clouds, edged with dazzling white. The shadow of the lone wolf standing on the rock shot far down the white mountainside like a black spear. The end of the shadow disappeared in the inky depths of a thicket far below.

The eyes of the wolf ranged for a hundred miles the frozen, moonlit scene of black and white. The lake was gone. All was white down there. All was still, cold, dead. The world was dark and dead. The wolf lifted her head to give tongue to that which alone could make the scene more drear.

As the gaunt hand was lifted, the end of the shadow left the black thicket. The wolf stopped, still silent. In that thicket she had had her last taste of living blood. How the warm blood had spurted, hot and

teeming in the frosty air, when she sunk her teeth into the gurgling throat.

This remembrance gave the wolf new life. Down the glittering slope she flew with great leaps, unmindful of the tender stump. Like the shadow of death she entered into the thicket. The middle of it was clear. Here rotted a great log. Here the moon shone like a glazed sun. Through the frozen crust the wolf dug with a single paw. Her jaws seized a bone and pulled it to the surface. The bone was dry and bare and chalky.

A howl of a wolf echoed from the crags and cliffs of Long's Peak. In the awful cry was hunger, death, despair, revenge, triumph, and justice. In the howl was the life strength of a timber-wolf.

Down on the shores of the frozen lake, in a log cabin, a bride-mother heard that agony go freezing by, and she hugged closer her new-born. The mountaineer glanced at his rifle and at the barred door.

At the foot of the peak a half-grown buck, which that day had won his first fight, heard that cry, and crowded under the belly of his dam, throwing both into the snow, where they lay bleating in helpless terror.

The echoes carried the she-wolf's death-cry miles away through the soundless night, and faintly into a panther's den. The great cat, standing over her young, shuddered at that cry, bristled and bared her teeth and snarled. Two clumsy cubs that had been rolling, ball like, playing with the gnawed hoof of a deer, slunk close to the panther mother.

As the last note rolled from between the yellow fangs the death-rattle sounded in the throat of the dying wolf. In the last paroxysm, the wolf clenched her teeth into the dry bone on which rested the now bleeding stump. The bone cracked and split between the iron jaws. There it stayed. The bone was a child's skull.

In the president's private office a man sat in his chair asleep. His face was gaunt as Lincoln's. The man shuddered and jerked now and then in his fitful sleep. Suddenly he aroused himself wearily, passed his hands through his gray, twisted mass of hair and pressed them hard over his hollow eyes. But nothing could shut out the blood-congealing image of a frozen peak with a black lake at its foot.

The sight of a mountain of crusted silver froze his burning mind. Long he sat, looking straight ahead of him into nothingness. Then slowly he said:

"This is the life of a coward. If she is under that crust, I can at least live for others—and for her mother.

"Brute! In your selfishness you have thought only of yourself—of your own sorrow! You have left her, your wife, her mother, without help to bear her load alone. Hers is the greater burden — she does not love me; but we both love her. I will go to her and I will help her."

He pushed away from the paper-littered table as a thing abhorrent. As fast as horse could go Mason went to his home.

Just within the door of the dim fire-lit room he stopped and bowed his head. Unconscious of his presence, the woman on the wolf-skin was still fondling the baby's shoe. Reverently he went and knelt beside her.

A look! A cry! The gulf that had always yawned between them was bridged in silence too deep for words. For the first time in their lives this man and this woman met face to face, mind to mind, heart to heart, soul to soul—knew each other and their own inner selves.

Invisible baby hands knitted together the fibers of their mutual being.

Stealing clear on the still, blue air came the tones of a single bell—then burst the merry, metal chorus, welling, swelling, chiming merrily the glad Christmas tidings.

The woman raised her face, and moaned:

"Ruth, Ruth, Ruth—oh, Heaven, give my baby back to me!"

The man stroked her hair and bowed his head above hers, and murmured deeply:

"Thy will be done."

(The end.)

The Railroad Man's Brain Teasers.

FRITZ GANNON, Helena, Montana, contributes all of the teasers in this number:

(20) A car-checker has a string of seven cars, each containing a number consisting of six figures. After entering down the numbers, he is surprised to find that not only do the numbers of the first six cars contain the same figures, but he also notices that the number on the second car is twice as great; that of the third, three times as great; that of the fourth, four times as great; that of the fifth, five times as great; and that of the sixth, six times as great as the number on the first car he checked. The seventh car has a number, containing none of the figures to be found on the other six, yet the number on the seventh car is seven times as great as that on the first. What were the numbers on the cars?

(21) A conductor in making up a freight-train has to cut out a certain number of cars from three tracks. He finds that there are 10 more cars on Track No. 2 than on No. 1, and 10 more on No. 3, than on No. 2. He cuts out from No. 1, one-half the cars, and a half a car besides. From No. 2, he cuts out one-fourth the cars, and a fourth of a car besides. From No. 3, he cuts out one-sixth of the cars and a sixth of a car besides. After doing so, there are ten more cars on Track No. 3 than on No. 2, and ten more on No. 2 than on No. 1. How many cars were there at first on each of the three tracks?

(22) A section-foreman, being asked by a passing hobo the time of day, replied "The days are now sixteen hours long, and when as much time has passed as has already passed since the hands of my watch were last together, the sun will have just done two-thirds of its shining to-day." Assuming that the sun rose at 4 A.M., that day, what time was it when the foreman made the above statement?

The correct answers to the above puzzles will be found in the April number.

ANSWERS TO FEBRUARY TEASERS.

(16) 47 11-27 miles an hour.

(17) 19 parlor-cars at $5,000, $95,000; 1 day-coach at $1,000; 81 second hand flats at $50, $4,050. Total, 100 cars for $100,000.

(18) First engine, 913⅓ tons; second engine, 458⅓ tons; third engine, 641⅔ tons; pusher 1,008⅓ tons.

(19) At any point 500 miles south of the equator. It would be impossible to fulfil the conditions by starting from any other point.

ON THE EDITORIAL CARPET.

Where We Get Flagged by Our Readers, and Find an Exhaust for Our Own High Pressure.

OUR running-orders for April are ready. They look pretty good to us. When we say this, we mean that they are a little better than any running-orders we have had at any previous time and for any previous run.

Scanning the sheet, we find that three new serials will start with April. They are just as intense and gripping in their way as those which close with this number—there are no blocks caused by washouts or broken rails; no leaky joints or broken valve-stems—but a clear track all the way.

The first serial is "The Thousand-Mile Ticket," by Dan Duane, which introduces a character somewhat similar in bravado, fearlessness, and adventure to Seth Waters, who made the chapters of "In the Hornet's Nest" so interesting.

"Baker of the Bad Lands" is by Walter T. Percival, a writer whom we are introducing for the first time. It is a story that deals with stirring adventures of border life, of a time when it took more than grit and force to build a railroad.

C. W. Beels, who has contributed a number of clever short stories to our pages, will appear with his first serial. It is called "Dr. Jourdan's Mystery," and deals with the remarkable transformation of a man who was destined to be a crook.

There will be another thrilling story of frontier life by R. M. West, whose narrative, "A Frontier Man-Hunt," appears in this number. All of Mr. West's stories are based on real happenings and are truthful pictures of the most romantic days in the building of our West.

The latest development in locomotives and other important phases of railroad life, will be described by one of our most practical writers.

Walter Gardner Seaver will be aboard with an unusually good batch of roundhouse tales.

Another particularly interesting article will tell of the struggles of the first builders of the railroad—of the days when George Stephenson was trying to make his wonderful invention prove its worth. This article will recount the court proceedings of a suit brought by certain canal owners and landed proprietors of Great Britain to prevent the construction of a railroad. One of the most learned lawyers on the opposing side told Mr. Stephenson that it was impossible to run a train through a tunnel because the snow would blow into the tunnel, turn to ice, and thereby block the train's progress!

What do you think of that?

The buffer and the vestibule are important parts of every train. They have a history of their own like all other railroad improvements. Their importance is described in this number.

In "Ten Thousand Miles by Rail," Gilson Willets will take a jump from Missouri through the Sun Flower State, where he collected a number of good yarns.

These are only a few of the special features that we care to mention just now. We reserve the right to start up a few genuine surprises.

In the short fiction line, there will be nine or ten stories of the sort for which THE RAILROAD MAN'S MAGAZINE is famous. We wish to state, with our accustomed modesty, that the short stories we are printing are attracting more than ordinary attention. We always believed they would. They are selected with the greatest care, and represent phases of life that thrill with energy, life, determination, and humor, such as no other magazine can present.

In April, the experiences of our friends, "Honk and Horace" in Oklahoma, are told in Mr. Emmet F. Harte's best vein. Robert Fulkerson Hoffman has just completed a new story in his most delightful style, which we will present. Augustus Wittfeld, MacDuffie Martin, Felix G. Prentice, George Foxhall, and others, will be in evidence.

In short, our April number will be a corker. We are not trying to blow off while hot, about its excellence. There are no cracked sheets or broken stay-bolts—the water in the gage-glass of our hopes is fluctuating with the water-line in the boiler of our energy, and it looks as if we have a good run ahead of us.

THE RAILROAD CLUBS.

SURPRISE has many times been expressed that more real benefit to the railroads of this country has not been obtained through the organized railroad clubs located in the principal railroad centers throughout America, says the *American Engineer and Railroad Journal*. While, of course, all of these clubs are of more or less value to their members, this becomes insignificant when it is considered what they might be, not only to their own members, but also to the members of all other clubs. Here is really a clearing-house for the observations and experiences of the

last month for outlines, already organized, from which the most valuable part of their value is available for general use.

Mr. C. E. Turner several years ago suggested that all of the clubs throughout the country discuss the same subject at corresponding meetings. Mr. Vaughan in his presidential address before the Master Mechanics' Association, in 1900, suggested that the railroad clubs should be depended upon to thoroughly thrash out the subjects which were to come before the Association, so that decisive and positive conclusions could be reached on the various important subjects that were brought up.

Both of these suggestions are excellent, and it is now further suggested that all of the clubs affiliate into one organization, and that a permanent secretary, provided with suitable office-force and properly recompensed, be employed. Further, that the American Railway Association be requested to name a consulting board, who should decide what subjects are most worthy of discussion, and that the permanent secretary, through the medium of the local secretaries, obtain papers to be presented by each of the various clubs on this subject, where it could be thoroughly and completely discussed. The papers, with the discussion, should be returned to the permanent secretary, who would condense them and put the whole matter into suitable shape for publication and for the use of the committee who might be preparing a report on the same subject for one of the National Associations.

This suggestion, while capable of criticism on a number of points, and possibly not suitable for adoption in its entirety, still has many points of practicability, and if something of this kind could be brought about, the proceedings of the Associated Railroad Clubs of America would be the most valuable source of information on railroad topics that could possibly be compiled, and with the certainty assured of results which in prospect are now largely speculative.

THE RIDDLE OF THE CROSS-HEAD

SINCE publication of the reply to "E. T.," Southampton, Long Island, in "By the Light of the Lantern" for January, we have received a number of critical, though kindly, letters intended to straighten out our interpretation of the so-called cross-head problem. We have been greatly pleased to receive these communications, because all evince a friendly and appreciative interest in this popular department on which we have worked exceedingly to perfect. We do not object to a "call down" when you think that you have it on us, no matter whether, as in this case, the shoe scarcely happens to fit.

The cross-head question, as originally propounded, to the best of our recollection, ran as follows:

"Does the cross-head of a locomotive move backward in the guides when the guides move forward on the cross-head?"

We replied that the cross-head did move backward in the guides, which it does, irrespective of the fact that it must be necessarily *carried* always ahead, provided that the locomotive is running forward.

To make this entirely clear, the answer in the January "Lantern" department was based on a consideration of the relation between the cross-head and the locomotive which carries it, and with no consideration of the relation between the cross-head and some fixed point foreign to the locomotive, as, for instance, the ground or the rail.

No such connection, however, was suggested in the correspondent's letter. Under the conditions mentioned, the reply as given is absolutely correct. It now appears that this time-honored query, which is largely a trick, must not take into account the relation of the cross-head to the guides, but to the rail or ground.

It does not require labored diagrams and lengthy explanations to prove that no matter in which direction the cross-head may be moving, it can never return to a point over the rail where it may have been before. This can be shown by the most elementary application of simple algebra, but before proceeding with the demonstration we would like to impress that the cross-head does not move anywhere except back and forth in the guides, as we said in January.

Its movement in the direction in which the locomotive is going is simply because it is *carried* along with the locomotive of which it is, with its guides, a component part.

Assuming:

Diameter of driving-wheel = x
Stroke of piston = y
Circumference of driving-wheel = πx

On the lower half of one revolution going forward the locomotive *moves* forward in relation to the rail a distance = $\frac{\pi x}{2}$. At the same time the cross-head moves *backward*, relative to the guides, a distance = y. At the same time, the cross-head is also *carried* forward, relative to the rail, a distance = y. When on this half of the stroke the cross-head is *carried* forward, relative to the rail, a distance = $\frac{\pi x}{2} - y$.

On the other (upper) half of the revolution, the locomotive moves forward the same distance $\frac{\pi x}{2}$, and the cross-head moves forward relative to the guides, a distance = y. Then, on this half of the stroke the cross-head is *carried* forward, relative to the rail, a distance = $\frac{\pi x}{2} + y$.

Taking the entire strokes (revolution) together, we find that the locomotive has moved forward, relative to the rail, a distance = πx, and that the cross-head has been *carried* forward relative to the rail, a distance $\left(\frac{\pi x}{2} - y\right) + \left(\frac{\pi x}{2} + y\right) = \pi x$, or the same as the locomotive, q.e.d.

The long and short of it [illegible] cross-head

goes regularly back and forth in the guides but while all this is going on it is being carried ahead with its guides by the locomotive to which they are attached. It might be roughly illustrated by a ball thrown between two men on either end of a flat car in motion. The ball *moves* back and forth between the men but it can never return to a point in relation to the track which it has once left.

We feel impelled to quote a sentence from one letter of those received on this matter. "In your answer you claim that it (the cross-head) moves backward, which it does not, and at no time does it stand still"

For the benefit of this particular correspondent, we want to demonstrate how easily the cross-head might stand still if proper proportions or dimensions were present. He may be surprised to know that such diameter of wheel and such length of stroke can be assumed as to make $\frac{\pi x}{4} - y = 0$, *i. e.:* that the cross-head under such assumption is actually stationary in relation to the rail for the upper half of the stroke

Example:

Let $x = 20$.

Let $y = 31.4$.

Then $\pi x = 3.1416 \times 20 = 62.83$.

Then $\frac{\pi x}{2}$ 31.4.

And $\frac{\pi x}{2} - y = 0$.

Although we could not use any of the diagrams and explanatory matter which several correspondents kindly sent with their letters, we are grateful for them, because they establish that in the cross-head problem the rail or ground is the point to be considered. Had the original question contained this information we would have proceeded long ago with the simple explanation as above; but in view of this omission, our answer was possibly not as elaborate and satisfying as it might have been.

FUEL OIL IN THE NORTHWEST.

As soon as locomotives of the Northern Pacific and the Tacoma Eastern railroads in Western Washington can be equipped with oil-burners, all engines on the main lines traversing the forest sections of the State will be using oil instead of coal, thereby eliminating one of the greatest dangers from forest fires

President Williams of the Chicago Milwaukee and Puget Sound announces that the Tacoma Eastern locomotives will be equipped with oil-burners early next spring. The Tacoma Eastern runs through a great virgin forest, part within the Rainier National forest and part owned by private corporations

All the other Milwaukee lines running through the forests are already equipped with oil-burners. The Oregon-Washington Railroad and Navigation Company and the Great Northern railways now use California oil as fuel where their lines penetrate the forests. The Northern Pacific is making preliminary investigations with a view to making the same changes on the west end of the system.

THE PREVENTION OF SMOKE.

THE comparative absence of smoke in Berlin is claimed to be due partly to the use of fuel briquettes. Consul General A. W. Thackara states that 30 per cent of the coal-fuel consumed in the city and suburbs is brown coal briquettes, and it has been technically demonstrated that, having been produced without the addition of a special binder, they burn with less smoke than any other briquettes. Considerable coke is also used in Berlin

The quantity of coal briquettes produced in Germany increased from 9,250,000 tons in 1901 to about 16,300,000 tons in 1907 and to 18,000,000 tons in 1910. Consul Albert Halstead, of Birmingham, reports that the manufacture of coal briquettes has become a large industry in the United Kingdom

Official figures show that in 1909 the production for the whole Kingdom was 1,512,645 long tons, valued at $4,761,860. This output was divided: England, 177,895 tons, valued at $569,071; Wales, 1,270,235 tons, valued at $3,948,591; Scotland, 43,620 tons, valued at $144,885; and Ireland, 20,895 tons, valued at $100,313. The values given represent the selling-price at the place of manufacture.

A NEW RAILROAD POET.

RAILROAD men in the Northern Pacific yards at St. Paul, Minnesota, often stop to look at a smooth-shaven, slender young switchman who has endeared himself to them through short bits of poetry written during his idle moments. Not infrequently is C. G. Byrne seen perched on top of a box car, pencil in hand, writing on a scrap of paper. When he has finished, there is always this request, "Let me see, Byrne." Some of his productions are worthy of attention.

Not long ago, Roger, the little son of the switchman, was ill. The doctor had given up hope of saving the boy's life. Sitting at home that night, the father saw the boy's engine—a bright toy—idle on the playroom floor. He drew a paper from his pocket and wrote the touching verses, "The Dead Engine," which appear on page 280 of this number

SONGS WANTED.

CAN any one of our readers supply us with the complete words of the song "Down in the Lehigh Valley"? We have had several

requests to print this old poem. Who can send us the complete words?

We would also like the words of the song which begins

"When Johnny was a little lad, he started for the West
But he never got no further than Cheyenne."

A reader in Asheboro, North Carolina, asks for a certain ballad beginning:

"On the twenty-first day of last September,
The clouds were hanging low.
Ninety-seven pulled out from the station
Like an arrow shot from a bow."

He doesn't know any more of it; neither do we. Who does?

Then there is another seemingly famous ballad of bo-life which is wanted. It is entitled, "Lock Me in the Box Car." Will Mr. Bones please oblige?

ANSWERS TO CERTAIN SIGNALS.

W. L. S., Biggs, Pennsylvania. It is really impossible for us to print in this issue the names and addresses of the road-foremen, mechanical engineers, and master mechanics of all the roads given in your letter. They would take up too much space. Simply address the general master mechanic or any other officer of the road in question, and the letter will reach the right man. It is not necessary to have his name.

R. C. S., Operator, Manchester, Oklahoma. Thanks for your verses "Oh, You Telephone!" Would like to use them, but we have decided not to stir up any more strife on this subject.

K. K., and others.—"Honk and Horace" began their doin's in THE RAILROAD MAN'S MAGAZINE in November, 1908. You can secure back numbers by sending ten cents per copy to this office. Yes, "Honk and Horace" will be with us for some time to come. They have a pass over all our lines—notwithstanding the Hepburn Law.

Walter, E. J., Suisun, California.—The abbreviation "con" means conductor; not consumptive.

FROM A "LADY HAM."

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IF you will permit, I would like to say a few words regarding despatching by telephone. I have just read Operator Naugle's little "spiel" in the January magazine. I agree with him. There is not an operator in the United States who likes the telephone. Why? Sure there is a reason. In the first place, the "tick-tick" of the sounder is the sweetest music an operator ever heard. Silence the sounder and the operator is lonesome and wonders if the wire is down, if his instrument is out of adjustment, or what. Immediately he will seek the trouble.

A telephone-operator never knows where the trains are, if they are gaining or losing time, or what trains are coming and going, unless he sits with that harness on his head; and who wants to sit hours and hours listening to the other operators and "hams" repeat orders?

In the first place, an operator has too many other duties to devote all his time to the phone. He can be selling tickets, posting the books, and numerous other duties, and still keep tab on all the trains.

Some contend that the phone is faster than telegraphing. Possibly it is, at least, a despatcher can talk faster than he can send, but an operator cannot copy any faster from the telephone. He can write just so fast and no faster, no matter how rapidly the despatcher talks.

Another thing, it is impossible to copy as far behind on the phone as you can by telegraph. I have to keep right up with the despatcher, else I lose out. I have heard several say the same thing.

How many operators who have copied and delivered orders that had been despatched by phone felt as confident as if the message had come by telegraph?

Ask the conductors, and they will tell you they don't like to run on orders despatched over a phone. During the past month, several have told me they were afraid of phone-orders. I must confess, I'm afraid of them, too, and I have never delivered an order that had been despatched by phone when I wasn't uneasy.

The telephone will never mean to the operators what the Morse does, and I see where railroading is fast losing its charm for me as well as for thousands of others. No matter how big a "ham" you may be, you are willing to keep on struggling rather than have the phones to contend with. Am a full-fledged "ham" myself, but I am not willing to work on the phones. I much prefer working on some road where there are no phones, for half the salary.

If the phone is to succeed the Morse, twenty-five years from to-day there will be no operators except those in commercial offices. Any one can sit down and, in an hour or two, learn the book of rules, pass the examination, and walk down and tell us old experienced railroaders where to "head in." What protection have we? None whatever.

MISS BRASS POUNDER, Colorado.

BLASTS AND ORDERS.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IN your February number, you tell L. E., Garber, Missouri, that you do not know of any such signal as three short blasts of the engine-whistle. Perhaps it is not in use on all roads, but on our lines here it is used.

When the conductor of a passenger-train wants the train stopped at the next station, which is in all probability a flag-stop, he gives the engineer three short blasts on the air-signal whistle. The engineer answers this by three short blasts of the engine-whistle.

L. E. also asks, "Is it safe for an operator to recopy train-orders?"

Here on the Pennsy, we sometimes overlook our copies. In such an event, we lay the original

copy over some blank orders and trace them from the original. When we do this, we repeat the rejected order to the dispatcher, and have him "O K" it.—An Operator, Bellaire, Ohio.

Editor, The Railroad Man's Magazine:

In regard to G. F. B.'s letter on the use of ferrules in putting in boiler-flues, in your January number, I want to say that I have put in a few flues, part of them for Uncle Sam, and I *never* waste time on ferrules. I have never had a flue-leak develop in my flue-work. I simply put in the flue and "roll" it well, but not too hard. Even "beading" is not essential to a tight joint, but is usually put on "for looks."

No—ferrules are absolutely superfluous. Putting them on is work thrown away.—I. M. F., Fort Sill, Oklahoma.

LOOKING FORWARD.

THIS is the way that they looked at it, boys, way back in 1789, when Dr. Darwin's "Botanic Garden" was first published after twenty years of constant labor on the part of the author. They certainly looked on steam with some awe in those days:

Soon shall thy arm, unconquered steam, afar
Drag the slow barge, or drive the rapid car;
Or, on wide-waving wings expanded bear
The flying chariot through the fields of air,
Fair crews, triumphant, leaning from above,
Shall wave their fluttering 'kerchiefs as they move;
Or warrior bands alarm the gaping crowd,
And armies shrink beneath the shadowy cloud;
So mighty Hercules o'er many a clime
Waved his huge mace in virtue's cause sublime;
Unmeasured strength with early art combined,
Awed, served, protected, and amazed mankind.

OLD-TIME POEMS.

MR J. W. WOOD, of Muskogee, Oklahoma, has sent us several noted railroad classics, which have already appeared in The Carpet. He sends us another, "The Engineer's Story," which we append herewith. Again, our thanks to Mr. Wood.

THE ENGINEER'S STORY.

WELL, yes, 'tis a hair-curlin' story—
I would it could not be recalled!
The terrible fright of that hell-tinctured night
Is the cause of my head bein' bald!
I was runnin' the Git-There Express, sir,
On the Yankee Creek jenkwater line,
An' the track along there was as crooked, I swear,
As the growth of a field pumpkin-vine.
My run was a night one, an' nights on the yank
Was as black as the coal piled back there on the tank.

We pulled out of Tenderfoot Station,
A day and a half, almost late,
An' every durn wheel was a poundin' the steel
At a wildly extravagant rate.
My fireman kep' piling the coal in
The jaws of the old 94
Till the sweat from his nose, seemed to play through a hose,
An' splashed 'round his feet on the floor
As we thundered along like a demon in flight,
A rippin' a streak through the breast of the night!

As we rounded a curve on the mountain,
Full sixty an hour, I will swear,
Just ahead was a sight that with blood-freezin' fright
Would have raised a stuffed buffalo's hair!
The bridge over Ute Creek was burnin',
The flames shootin' up in their glee!
My God! how they gleamed in the air, till they seemed
Like fiery tongued imps on a spree
Jest snickered an' sparkled an' laughed like they knowed
I'd make my next trip on a different road!

In frenzy I reached for the throttle,
But 'twas stuck, and refused to obey!
I yelled in affright, for our maddening flight
I felt that I never could stay
Then wildly I grasped the big lever,
Threw her over, then held my hot breath,
An' waited for what I assuredly thought
Was a sure and a terrible death!
Then came the wild crash, an' with horror-fringed yell
Down into that great fiery chasm I fell!

When I came to myself, I was [illegible],
On the floor of my bedroom; my wife
Sat on top of my form, an' was makin' it warm
For her darling—you bet your sweet life!
My hair she had clutched in her fingers
And was jamming my head on the floor
Yet I yelled with delight when I found that my fright
Was a horrible dream—nothing more!
I had wildly grabbed one of her ankles, she said,
And reversed her clear over the head of the bed!

ON THE FRONTIER.

By I. Edgar Jones.

WHAT! Robbed the mail at midnight! We'll trail them down, you bet!
We'll bring them to the halter; I'm sheriff of Yuba yet.
Get out those mustangs, hearties, and long before set of sun
We'll trail them down to their refuge, and justice shall yet be done.

It's pleasant, this rude experience; life has a rugged zest
Here on the plains and mountains, far to the open West:
Look at those snow-capped summits—waves of an endless sea;
Look at yon billowed prairie—boundless as grand and free.

Ah, we have found our quarry, yonder within the bush!
Empty your carbines at them, then follow me with a rush!

Down with the desperadoes! Ours is the cause of right!
[illegible] must gain the fight!

Pretty hot work, McGregor; but we have gained the day.
[illegible] sneaked away?
There he goes in the chaparral! He'll reach it now in a bound!
Give me that rifle, Parker! I'll bring him down to the ground

There! I knew I could drop him—that little piece of lead
Sped straight on to its duty. The last of the gang is dead
He was a handsome fellow, plucky and fearless, too.
Pity such men are devils, preying on those more true

What have you found in his pocket? Papers? Let's take a look.
George Walgrave stamped on the cover? Why, that is my brother's book;
The deeds and the papers, also, and letters received from me;
He must have met these demons—been murdered and robbed, you see.

And I have been his avenger! It is years since last we met.
We loved each other dearly, and Walgraves never forget
If my voice is broken, excuse me. Somehow it confines my breath—
Let me look on the face of that demon who dogged poor George to his death!

Good God! It is he—my brother—killed by my own strong hand!
He is no bandit leader! This is no robber band!
What a mad, murderous blunder! Friends, who thought they were foes.
Seven men dead on the prairie, and seven homes flooded with woes.

And to think that I should have done it! When ere many suns should set,
I hoped to embrace my brother—and this is the way we've met!
He with his dead eyes gazing up to the distant sky.
And I, his murderer, standing, living and unharmed, by!

Well, his fate is the best one! Mine, to behold his corse,
Haunting my life forever—doomed to a vain remorse.
How shall I bear its shadows? How could this strange thing be?
Oh, my brother and playmate! Would I had died for thee!

[illegible] Bury them here, my [illegible]
Here, where the green-plumed willow over the prairie bends.

[illegible] [illegible] [illegible]
[illegible] [illegible]
[illegible] [illegible]
[

Look before you lease

The old adage, "look before you leap" now reads, "look before you lease." A poorly heated building is no renting (or sales) bargain at any price—because no house is really worth living in without plenty of clean, healthful, invigorating warmth. That is why

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are proving in many thousands of buildings, of all classes, in America and Europe, to be the greatest boon of the century in utmost betterment of living conditions, as well as in *reducing the cost of living*.

IDEAL Boilers and AMERICAN Radiators bring *freedom* from the back-breaking work, ash-dust and poisonous coal-gases which attend the use of old-style heating devices. At the same time, an outfit of IDEAL Boilers and AMERICAN Radiators will prove to be a dividend-paying investment to you far better than bonds at 6% as in a few years the outfit saves enough in coal and cleaning, time and temper, no rusting or repairs, to quickly repay the original cost. Any owner, architect or real estate agent will tell you that IDEAL Boilers and AMERICAN Radiators will attract and hold best tenants at 10% to 15% higher rental; or assist to sell the property quicker, at full price paid for the outfit.

A No 3015 IDEAL Boiler and 175 ft of 38 in AMERICAN Radiators, costing the owner **$126**, were used to heat this cottage

A No 3-22 IDEAL Boiler and 1400 ft of 38 in AMERICAN Radiators, costing the owner **$215**, were used to heat this cottage

At these prices the goods can be bought of any reputable competent Fitter. This does not include cost of door pipe valves freight etc, which installation is extra and varies according to climatic and other conditions

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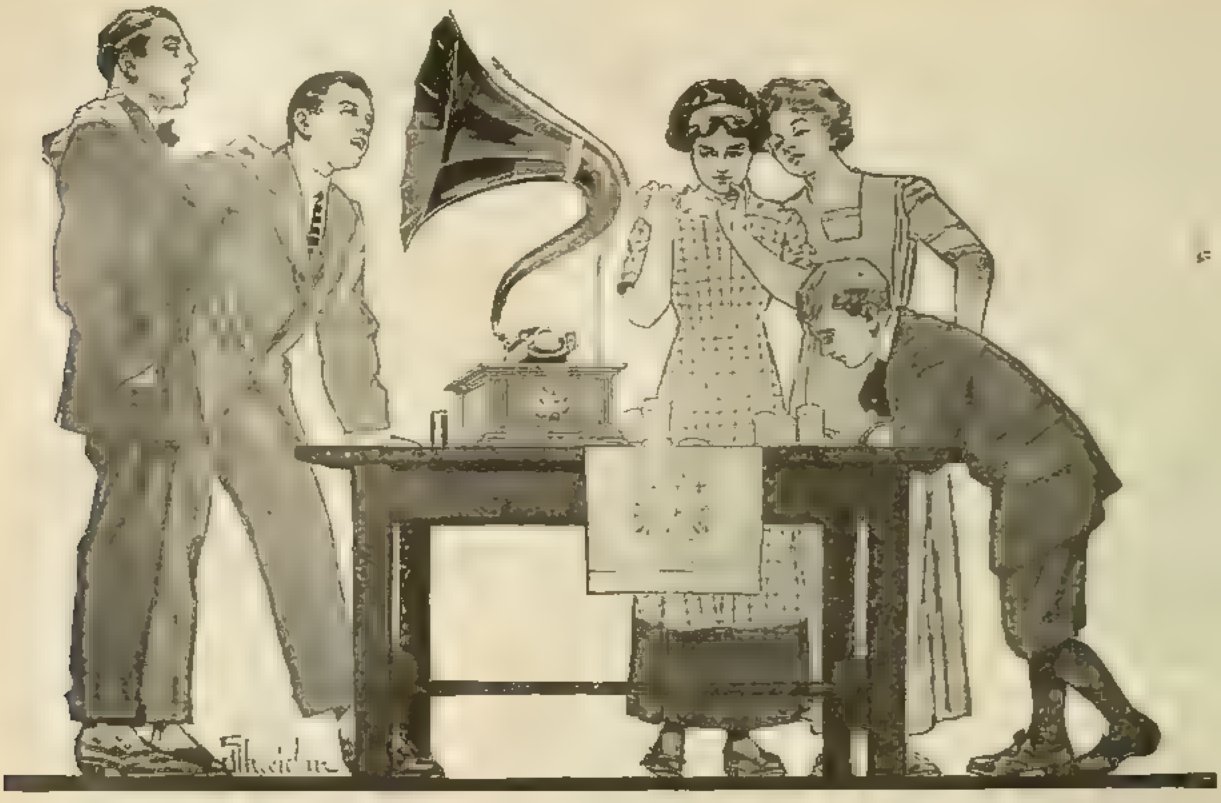
Write to Dept. J Chicago



Did you ever make a Phonograph Record? Did you ever hear yourself talk, sing or play?

Talk about entertainment—there is nothing that approaches the fun and fascination of making records at home on the

EDISON PHONOGRAPH

THE EDISON will record what you or your friends say, or sing, or play, and then instantly reproduce it just as clearly and faithfully as the Records you buy are reproduced. This is a feature of the Edison Phonograph you should not overlook.

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FOOD

scientifically meets Nature's demand for the necessary food elements, in proper balance.

Its rich nourishment is in concentrated, partly pre-digested form, supplying the vigor and endurance necessary for the accomplishment of one's life purposes.

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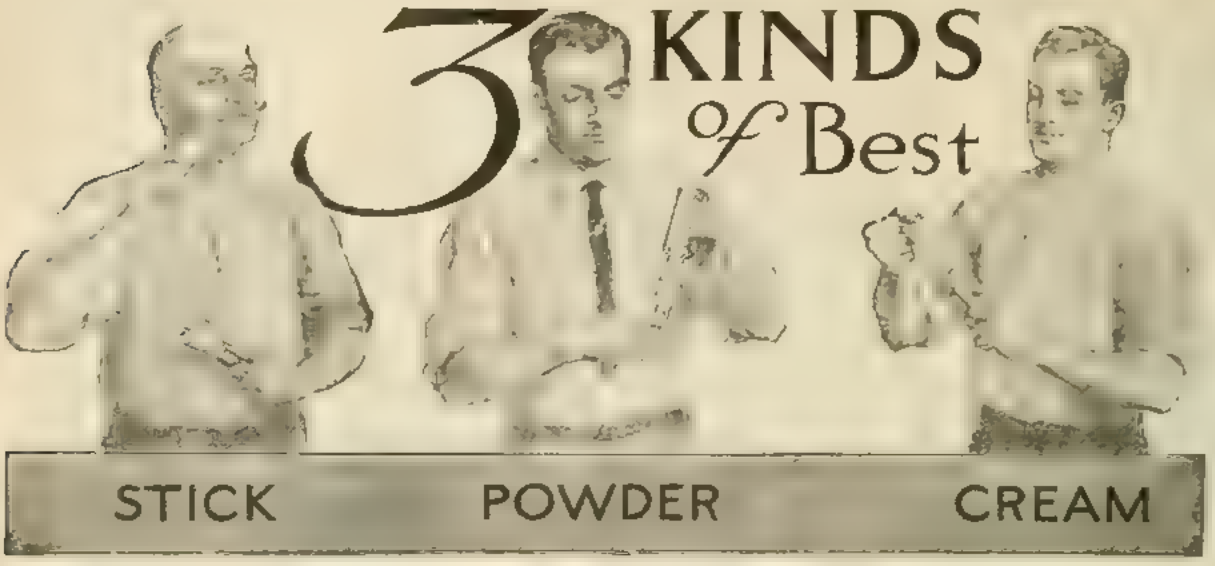

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You now have your choice of three ways of making Colgate's lasting, luxurious lather and of shaving in comfort.
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Best in its lasting abundance, best in its antiseptic qualities and best in its exceptional freedom from uncombined alkali. Do not ill-treat your face and handicap your razor by using an inferior lather.

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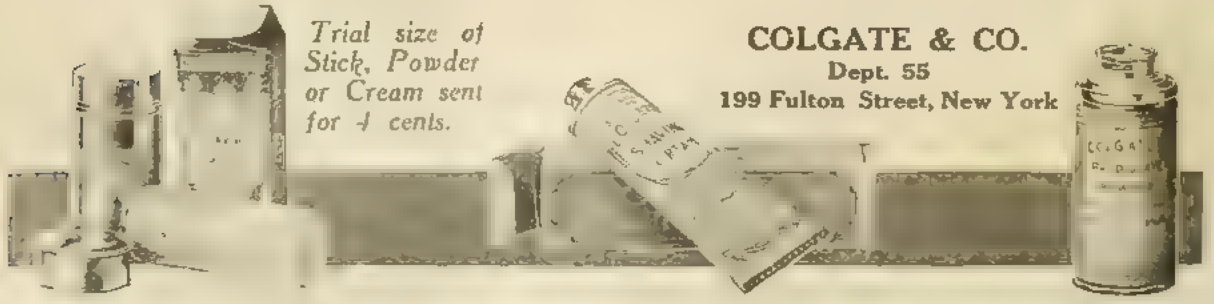

Trial size of Stick, Powder or Cream sent for 4 cents.

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[illegible] this direct, it is desirable that [illegible] mention THE RAILROAD MAN'S MAGAZINE

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Six months are spent just in making and putting the parts together. Another six months are required to bring this watch to its marvelous accuracy. A full year on one watch is not uncommon, but the *watch* is uncommon when it is finished.

Sixty different men each contributes his skill in its making. Each watch gets over four hundred inspections. Each must run continuously for thirty days and nights and keep accurate time or it isn't sent out.

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The way *you carry a watch* affects it. The man who sits at the throttle subjects his watch to the jars and jolts occasioned by the rocking of the locomotive—the man who supplies the steam is continually leaning backward and forward, keeping his fire at the right point—the man who carries the lantern is constantly jumping on and off the train and hurrying to and fro—each of these men subjects a watch to entirely different treatment and his watch must be one that can be regulated to offset the conditions under which it is carried.

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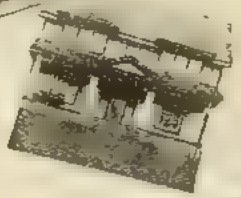

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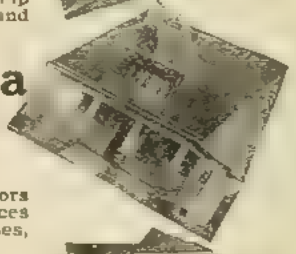

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Extra Thick French Edge Mattress.
Covered with Beautiful Mercerized French Art Twills.
An exceedingly luxurious, soft, springy, round-cornered mattress of extra weight, much thicker than regular.
Five Inch Inseamed French Edge Border.
4 feet 6 inches wide, 60 lbs., $30.00 each.

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In the course of our enormous business, hundreds of ticking remnants accumulate. We take this annual opportunity to move them. You get the financial benefit—we clear our stock.

These mattresses cost $30. regularly, and are in every way as great, if not greater bargains than those sold last year at the special price of $18.50. If you were fortunate enough to secure one, you will fully appreciate the present sale.

Mattresses are all full, double-bed size, 4 feet 6 inches wide, 6 feet 4 inches long, in one or two parts, round corners, 5-inch inseamed borders, French Rolled Edges, exactly like illustration. Built in the most luxurious possible manner by our most expert specialists.

Filling is especially selected Ostermoor Sheets, all hand-laid, closed within ticking entirely by hand sewing.

Weight—full 60 lbs. each, 15 lbs. more than regular

Coverings—beautiful Mercerized French Art Twills, finest quality—pink, blue, yellow, green or lavender, plain or figured. High-grade, dust-proof Satin Finish Ticking, striped in linen effect, or the good, old-fashioned blue and white stripe Herring-bone Ticking.

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When ordering state if you second and third choice of color or style, as in case all you like are already sold—there'll be no time for correspondence.

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$1,500.00 from 60 Hens in Ten Months on a City Lot 40 Feet Square

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PHILO SYSTEM

Note the condition of these three months old pullets. These pullets and their ancestors for seven generations have never been allowed to run outside the coops.

THE PHILO SYSTEM IS UNLIKE ALL OTHER WAYS OF KEEPING POULTRY

THE NEW SYSTEM COVERS ALL BRANCHES OF THE WORK NECESSARY FOR SUCCESS

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My Dear Mr. Philo [illegible] Pa. N. Y. Oct. 1 19[illegible]
[illegible] Poultry Keeping Journal [illegible]

Mr. E. R. Philo, [illegible] N. Y. [illegible]
[illegible] you will be interested to learn of our success [illegible]

Mr. E. R. Philo, Elmira, N. Y. [illegible] April 19, 1909
Dear Sirs—I have for [illegible] ment on nature, so it [illegible] Last year I sold [illegible] eggs and I can spare the room. [illegible] A. E. N.

Photograph Showing a Portion of the Philo National Poultry Institute Poultry Plant, Where There Are Now Over 3,000 Pedigree White Orpingtons on Less Than a Half Acre of Land.

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Try Cresolene Antiseptic Throat Tablets for the irritated throat, composed of slippery elm bark, licorice, sugar and Cresolene. They can't harm you. Of your druggist or from us, 10c in stamps.

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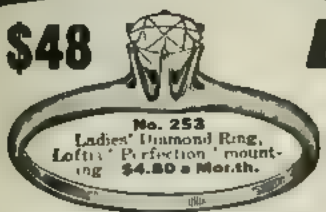

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"I made $88 in 16 first 4 days," writes Mr. Reed of Ohio. Mr. Woodward writes $170 a month. Mr. Mills made over $30 in two weeks. Rev. Crawford had $7.00 in 1 day. See what they have done, judge what you can do.

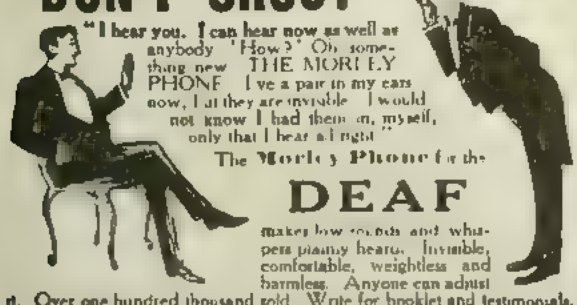
LET US START YOU

in Gold, Silver, Nickel and metal plating. Prof. Gray's new electro machine plates on watches, jewelry, tableware and metal goods. Prof. Gray's New Method Dynamo Process, at slight cost. Goods are out instantly with fine [illegible] finish, [illegible] look, [illegible] guarantee 3 to 10 years. No polishing or grinding. Every family, hotel and restaurant want goods plated.

PLATERS HAVE ALL THEY CAN DO.

People bring it. You can hire boys to do the plating. We do Metal Working for small per cent. Work [illegible] the way to do [illegible] No experience required, **we teach you. Recipes, Formulas, Trade Secrets Free.** Outfits ready for work when received. Materials cost about 10c. to do $1.00 worth plating. [illegible] Gold, Silver, Nickel and [illegible] Metals by **SAMPLE FREE.** Dept. [illegible] **GRAY & CO., PLATING WORKS, 513 Gray Bldg., Cincinnati, O.**

"DON'T SHOUT"



"I hear you. I can hear now as well as anybody. 'How?' Oh, something new. THE MORLEY PHONE. I've a pair in my ears now, but they are invisible. I would not know I had them in, myself, only that I hear all right."

The **Morley Phone** for the

DEAF

makes low sounds and whispers plainly heard. Invisible, comfortable, weightless and harmless. Anyone can adjust it. Over one hundred thousand sold. Write for booklet and testimonials.

THE MORLEY CO. Dept. 768 Perry Bldg. Phila.

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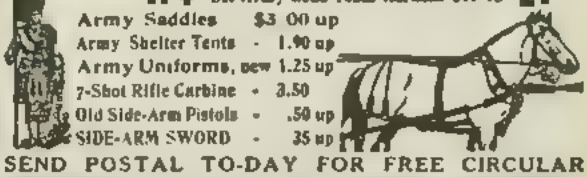

$114.00 SET ARMY POLE HARNESS $21.85
Set Army Lead Team Harness $17.95

Army Saddles	$3.00 up
Army Shelter Tents	1.90 up
Army Uniforms, new	1.25 up
7-Shot Rifle Carbine	3.50
Old Side-Arm Pistols	.50 up
SIDE-ARM SWORD	.35 up

SEND POSTAL TO-DAY FOR FREE CIRCULAR

[illegible] Government Auction Bargains in the world [illegible] offered for [illegible] 264-page catalogue, over 4,000 illustrations of Army and Navy auctions. [illegible] Regular Military Encyclopedia. Many [illegible] (no stamps). Cannons, Flags, Pistols, Rifles, Spears, Drums, Etc.

FRANCIS BANNERMAN, 501 Broadway, N. Y.

A REMARKABLE OFFER OF HENDERSON'S SPECIALTIES

To demonstrate the superiority of Henderson's Tested Seeds, we have made up six of the best we have, into a Henderson Collection, consisting of one packet each of the following great specialties:

Ponderosa Tomato	**Henderson's Invincible Asters**	**Mammoth Butterfly Pansies**
Big Boston Lettuce	**Scarlet Globe Radish**	**Giant Spencer Sweet Peas**

To [illegible] "Everything for the Garden," described below, the large [illegible] trial [illegible] Tomato [illegible] tion, we will [illegible] Collection, as above.

EVERY EMPTY ENVELOPE COUNTS AS CASH

This Coupon [illegible] upon each [illegible] cepted and returned will be accepted as 25c. cash payment on any order of one dollar or over.

"EVERYTHING FOR THE GARDEN"

Our 1911 catalogue is, without exception, the best we have ever issued. 208 pages, 8 colored plates, 800 photo engravings, showing actual results without exaggeration, make it the most complete as well as beautiful horticultural publication of the year. Also contains full cultural directions for flowers and vegetables.

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Here's to "CHIPS"

With flavors Nature true;
—the only gum to chew!

Colgan's Mint or Violet Chips

"The Gum That's Round"

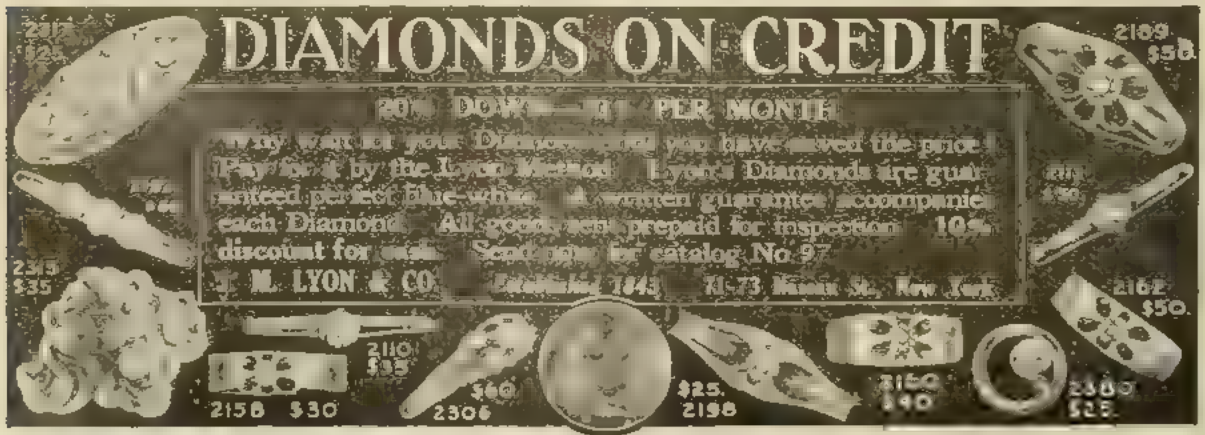
Pass them among the merry crowd! For they're dainty digestion-aiders. They sweeten the temper and refresh the spirits.

Tucked away in handy metal boxes Ten "Chips" 5c.

Ball player's picture in every package

You can buy MINT CHIPS and VIOLET CHIPS almost everywhere. If they're not sold near you send us 10c in stamps for a full box of each.

COLGAN GUM CO., Inc.
Louisville, Ky.



GET $1200

OF THIS

$500,000.00

NEXT MONTH

$500,000.00 to change hands

One cent starts you. Any honest, industrious man or woman can enter.

HURRY! HURRY! HURRY!

Thousands of dollars already distributed - going on daily. Listen!

10 people receive over $40,000

$2,212 [illegible]
$1,200 [illegible] $1,100
$13,215 [illegible]
$3,000 [illegible]
$1,685 [illegible]
$800 [illegible] $4,000 [illegible]
$2,800 [illegible]
$6,800 [illegible]
$2,200 [illegible]
$5,000 [illegible]

M. Juul

[illegible] **Proven by sworn statements addresses investigation any proof you want.**

Don't envy these people join hands -Win a fortune.

[illegible] **Allen's Wonderful Bath Apparatus.**

New, Different, Grand.

Wonderful [illegible] gives every home a bath room for only $6.50: [illegible]

R. V. [illegible]

Turns any room into a bath room with hot or cold running water. [illegible] no plumbing, no water works; [illegible] gives cleansing, friction, massage and shower baths. [illegible] minute operation. [illegible] **Truly marvelous!** [illegible]

[illegible]

What a winner [illegible] **No competition** [illegible] everything just right for an overwhelming business. [illegible] **Used by U. S. Government.** [illegible]

$164.25 WEEKLY FOR 3 MONTHS.

[illegible] 10 to 11 days. [illegible] 16 to 3 hours. [illegible] $115 worth the first day. [illegible] 60 people sold 55. [illegible] **money coming fast.** [illegible] 12 orders to day."

$500,000.00

[illegible] Experience unnecessary

Sectional View

FREE SAMPLE AND CREDIT TO ACTIVE AGENTS

[illegible]

Make $8,000 this year.

[illegible] **One cent starts you a postal** [illegible] It's free. [illegible]

ALLEN MFG. CO., 3237 Allen Bldg., Toledo, Ohio

$1.00

Brings You this Splendid 19 Jewel Watch

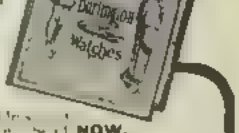
Prices Smashed!

The most astounding offer ever made in the whole history of the watch industry. An offer which has simply stupefied competition. Think of it! We get one Burlington Special and acknowledged by experts to be the world's masterpiece of watch manufacture, now shipped direct to you for an absolutely free examination. Only $1.00 down — the only **one dollar** - brings this superb 19 jewel Burlington. Then, if watch is satisfactory, you pay [illegible] at $2.00 a month. We want you to compare this watch with any watch that you ever saw, no matter what the price. If you decide not to keep the watch after you have had the free examination, simply ship it right back to us **at our expense.** But you will find the Burlington Special a quality superior to that of the highest priced complete movement on the market. **And at a price within the reach of all.**

The Splendid Burlington Special——Now Shipped DIRECT

We are determined to introduce our unparalleled line of watches [illegible] in the shortest possible time. We are doing [illegible] simply to [illegible] **a really high grade watch,** [illegible] Besides [illegible] we have decided to make [illegible] offers which they simply cannot afford to refuse.

Watch Book FREE



[illegible] will bring it free. Write NOW.

Burlington Watch Co., Dept. 1103 Millard Sta., Chicago, Ill.

BURLINGTON WATCH CO., Dept. 1103 Millard Station, CHICAGO, ILL.

[illegible] Without incurring any obligation on my part whatever, please send me, postpaid, your Free Watch Book, containing your $1.00 challenge, and full particulars of your offer to ship me a Burlington Watch on receipt of $1.

Name [illegible]

Address [illegible]

IVER JOHNSON

SUPPOSE you fall or something hits you—is your revolver shock-proof? Can the hammer be driven into the cartridge by an external blow? With an ordinary revolver the danger is all on one side—your side. *Accidental discharge is absolutely impossible with an*

IVER JOHNSON
Safety Automatic REVOLVER

Of the three million in use, not one was ever fired save in response to a purposeful pull on the trigger. More—The *Iver Johnson* will not fail you in a pinch. It has unbreakable, permanent tension wire springs, such as are used in U. S. army rifles. It is accurate, dependable, high class—and you can

"Hammer the Hammer"

To prevent substitution of obsolete models and limit sale to proper persons, distribution is confined to resident dealers, licensed under our patents. Mail-order houses are not licensed.

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Every Woman Who Gets This Book Cannot Help Becoming a Customer

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1911 SPRING & SUMMER CATALOG
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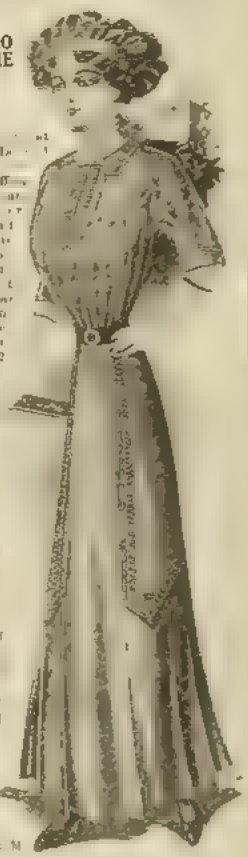
THIS WAIST OR SKIRT **$3.75** INSTEAD OF $6.75

To Introduce Our
Free Delivery FROM CHICAGO TO YOUR HOME
And 24 Hours Service Plans

A $6.75 Waist for $3.75



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Price delivered free from Chicago to your home— Regular $6.75 value for **$3.75**

A $6.75 Dress Skirt for $3.75

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OUR GUARANTEE

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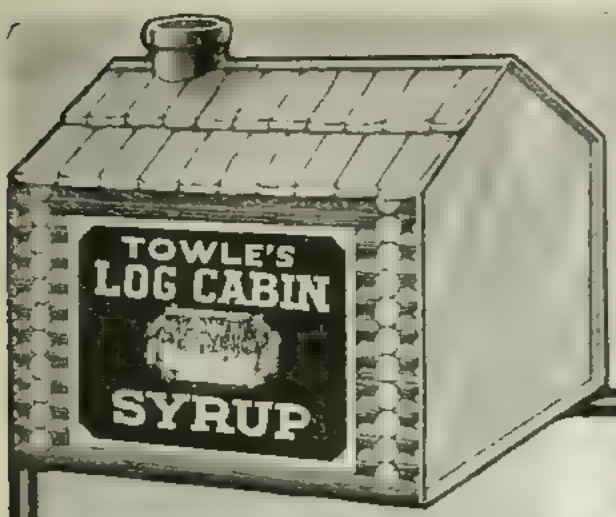
THE ORIGINAL
SIEGEL COOPER & Co
The Big Store Chicago's Economy Center
CHICAGO



Better and More Palatable Than Sugar

THE LOG CABIN — THE SYRUP CAN

FROM CAMP TO TABLE

IN ALL COOKING

where sweet, healthful, good things to eat are being prepared

TOWLE'S Log Cabin Syrup

adds a new delight—a new **flavor** that is simply delicious—sugar doesn't give it nor can it be secured in any other way.

Towle's Log Cabin is the Original Maple Syrup of Full Measure, Full Quality, Full Flavor.

It is put up in the Log Cabin Can which insures your getting the same goodness, the same purity, the same flavor that has made the name "Towle" The Pioneer Full Measure Maple Syrup a household word from Maine to Ocean.

White Table Syrup is unsurpassed on [illegible] delicious with waffles, griddle cakes, etc. It is also [illegible] in the preparation of desserts, puddings, frozen creams, candy

Send for It. It's Free—

Our attractive book, "From Camp to Table," tells of the many ways Towle's Log Cabin Syrup can be used and gives Forty three prize recipes. Address

The Towle Maple Products Co.
ST. PAUL, MINN., U. S. A.

Refineries and Offices
St. Johnsbury, Vt., In the Virgin Maple Sugar Forests.
St. Paul, Minn., In the Center of North America.
San Francisco, Cal., Pacific Coast Headquarters.

TO ANY READER of this advertisement who will send us [illegible] cent Log Cabin stamps, we will send, postpaid, a useful and [illegible] size, [illegible] enameled [illegible] as illustrated. Do not [illegible]

A Souvenir of Towle's Log Cabin

There is a coupon on every can of Log Cabin Syrup which explains how to secure more of these spoons. Address

The
Towle Maple Products Co.
St. Paul, Minn., U. S. A.

Our Decorative Staff will help you select the right colors and materials for painting the outside or decorating the inside of your house.

They have made a Portfolio of "Color Schemes for Exterior House Painting," which shows in the right colors many houses, with correct specifications for using the Sherwin-Williams products so as to produce the results shown. If you do not find just what you want in this Portfolio, our staff will make a special suggestion for you. The Portfolio is free. Send for it.

Interior Decoration

This is a small reproduction from the color design of the interior of one bedroom in the Sherwin-Williams Cottage Bungalow Portfolio, which is sent free and which will help you to decorate your house.

Stenciling

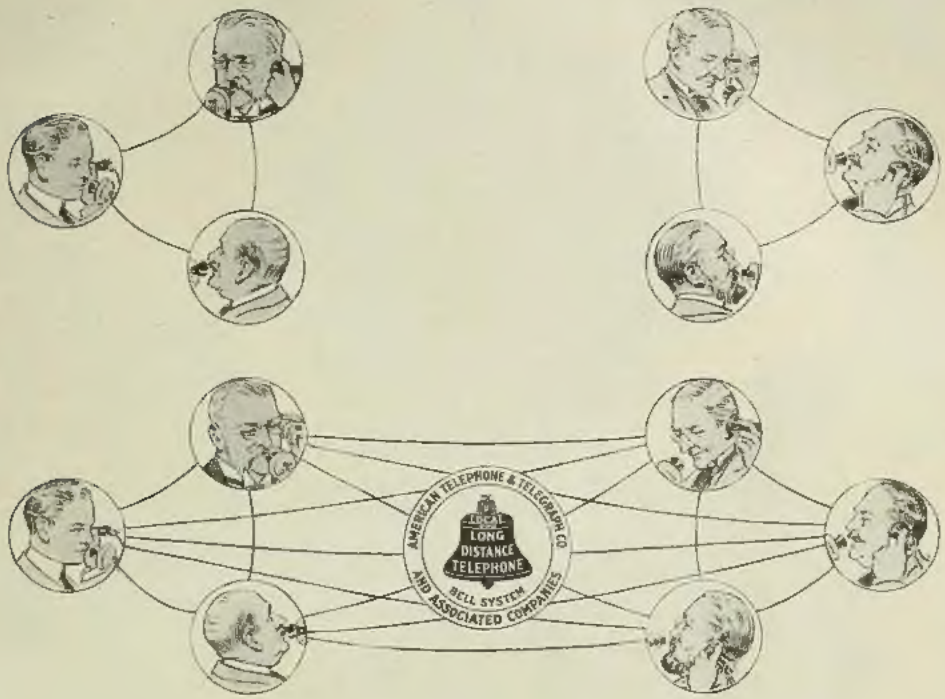
"Stencils and Stencil Materials," a helpful and suggestful book for decorating and beautifying the home and the things in it, is sent free upon request to anyone who will ask for it.

SHERWIN-WILLIAMS PAINTS & VARNISHES

Sold by merchants everywhere. Ask your local dealer for color cards and full information. For the Special Home Decoration Service write to The Sherwin-Williams Co., Decorative Dept. 616, Canal Road, N. W., Cleveland, O.

STENCIL No. 100

Union Increases Use



When two groups of telephone subscribers are joined together the usefulness of each telephone is increased.

Take the simplest case — two groups, each with three subscribers. As separate groups there are possible only six combinations—only six lines of communication. Unite these same two groups, and instead of only six, there will be fifteen lines of communication.

No matter how the groups are located or how they are connected by exchanges, combination increases the usefulness of each telephone, it multiplies traffic, it expands trade.

The increase is in accordance with the mathematical rule. If two groups of a thousand each are united, there will be a million more lines of communication.

No one subscriber can use all of these increased possibilities, but each subscriber uses some of them.

Many groups of telephone subscribers have been united in the Bell System to increase the usefulness of each telephone, and meet the public demand for universal service.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY AND ASSOCIATED COMPANIES

One Policy ***One System*** ***Universal Service***

There Is Beauty
In Every Jar

Improves Bad Complexions
Preserves Good Complexions

"Beauty is only skin deep." Then all the more need to give your complexion the attention it deserves. The first requisite for beauty is a healthy skin. Spots and blemishes, no matter how small, disfigure and mar the complexion. Loose skin, crow's feet and wrinkles (due to unnecessary rubbing) are also serious complexion faults. A sallow or colorless skin, as well as undue redness, are Nature's danger signals.

MILKWEED CREAM

gives relief from these and all other complexion ills. For a decade it has been recognized as the best face cream and skin tonic that skill and science can produce.

Milkweed Cream is a smooth emollient, possessing decided and distinct therapeutic properties. Therefore, excessive rubbing and kneading are unnecessary. Just apply a little, night and morning, with the finger tips, rubbing it gently until it is absorbed by the skin. In a short time blemishes yield to such treatment and the skin becomes clear and healthy, the result—a fresh and brilliant complexion.

To prove to you the advisability of always having Milkweed Cream on your dressing-table, we shall be glad to send a sample free, if you write us.

F. F. INGRAM CO., 82 Tenth St., Detroit, Mich.

MILKWEED CREAM

Bathe Daily with Fairy Soap

The daily bath is worth all the squills and pills in the world, but half its benefit and enjoyment depends on the purity of the soap used.

Fairy Soap is just as pure as its whiteness would lead you to believe—because it is made from edible products, and has no coloring matter, dyes or high perfumes to deceive the eye, or delude the sense of smell.

Its floating properties, handy, oval shape and price of 5c leave nothing to be desired.

THE N. K. FAIRBANK COMPANY
CHICAGO

"Have You a little 'Fairy' in Your Home?"

Healthy Folks

Can be comfortable in any kind of weather. But to be healthy, the blood must circulate freely from the heels to the top of head. No person can keep warm and feel good unless it does.

Many coffee drinkers shrink from weather a little above or below normal. Coffee has a tendency to congest the liver and more or less weaken the heart action, which, of course, interferes seriously with the circulation of the blood, and a variety of disorders may reasonably be expected to follow.

It seems that a little common sense impels anyone unpleasantly affected by coffee to quit it.

To such we present the facts about

POSTUM

a pure beverage with a flavour all its own.

There are millions of users, and

"There's a Reason"

POSTUM CEREAL COMPANY, LIMITED, BATTLE CREEK, MICHIGAN, U. S. A.